THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

BOARD OF TRUSTEES
MAY 19, 2016, 8:00AM
CHANCELLOR'S BALLROOM, CAROLINA INN

OPEN SESSION

1. Convene Meeting
2. Student Body President Oath of Office
3. Roll Call
4. Consent Agenda
   a. Approval of March 2016 Minutes (Regular Meeting) (Tab 1)
   b. Ratification of Mail Ballot dated April 7, 2016 (Tab 2)
   c. Ratification of Mail Ballot dated April 19, 2016 (Tab 3)
   d. Ratification of Mail Ballot dated May 10, 2016 (Tab 4)
5. Chair's Remarks
6. Report of the Nominating Committee
7. Student Body President's Remarks
8. Chancellor's Remarks
9. Edible Campus – Emily Auerbach, Chancellor's Fellow
10. Food For All – Marcie Cohen Ferris, Professor, Department of American Studies and Co-Chair, UNC Food For All; & Alice Ammerman, Professor, Department of Nutrition; Director of the Center for Health Promotion and Disease Prevention; and Co-Chair, UNC Food For All
11. Report of the Commercialization & Economic Development Committee
12. Report of the External Relations Committee
13. Report of the Finance, Infrastructure & Audit Committee
14. Report of the University Affairs Committee

CLOSED SESSION

15. *Report of the External Relations Committee
16. *Report of the University Affairs Committee
17. *Legal Advice

OPEN SESSION

18. Report of the External Relations Committee
19. Report of the University Affairs Committee
20. Adjournment

*Some of the business to be conducted is authorized by the N.C. Open Meetings Law to be conducted in closed session.

BOARD OF TRUSTEES MEETING
The University of North Carolina at Chapel Hill
March 24, 2016

The Board of Trustees met in regular session on Thursday, March 24, 2016 at the George Watts Hill Alumni Center, Alumni Hall. Chair Stone convened the meeting at 8:02 a.m.

ROLL CALL

Secretary Duckett called the roll and the following members were present:

Dwight D. Stone, Chair	Kelly Matthews Hopkins
Haywood D. Cochrane, Vice Chair	William A. Keyes IV
Charles G. Duckett, Secretary	Allie Ray McCullen
Jefferson W. Brown	William E. McMahan
W. Lowry Caudill, Past Chair	Hari H. Nath
Donald Williams Curtis	Houston L. Summers
Julia Sprunt Grumbles	

CONSENT AGENDA

Approval of Minutes and Mail Ballots

On motion of Chair Stone and seconded by Trustee Hopkins, the minutes of the meeting of January 28, 2016 were approved as distributed; as was the ratification of the following mail ballots dated:

- February 18th – Appointment of Dr. Terry Magnuson as Vice Chancellor for Research
- February 26th - Personnel actions, actions conferring tenure, and compensation actions

(ATTACHMENTS A-B)

CHAIR'S REMARKS

- Chair Stone began his remarks by welcoming everyone to the meeting and thanking Board members for their work since the January meeting.
- The Chair shared information on President Margaret Spellings' visit to campus earlier this week, as well as the reception that many members of the Board of Governors were able to attend.
- He thanked those involved with the President's visit and expressed his thoughts on President Spellings' public comments and how they have been received by key constituents.
- The Chair indicated that he looks forward to successful collaborations in the future with President Spellings, the Board of Governors, and the UNC General Administration staff.
- The Chair expressed how proud he was of the teamwork that went into the Connect NC Bond Campaign. The bond passed with overwhelming numbers.
    - Especially thanked Jennifer Willis and Lanier Hodgson, who co-chaired UNC Chapel Hill's campus efforts.
    - Shared that UNC Chapel Hill will receive $68M towards a new state-of-the-art medical education facility to replace Berryhill Hall.
- He shared examples of how UNC Chapel Hill trains leaders and professionals throughout North Carolina:
    - The School of Government (SOG) collaborates with the North Carolina Judicial College and the state's court system to provide education, training and support for judges, magistrates, and clerks of court via classes, webinars, email and phone calls.
    - The SOG also works with the NC Commission on the Administration of Law and Justice, an independent body governed by Supreme Court Justice Mark Martin to evaluate North Carolina's judicial system. Dean Mike Smith and Senior

Associate Dean Tom Thornburg are ex-officio commission members.
    - Alternative spring breaks through the Carolina Center for Public Service sent students to rural communities in Robeson County to focus on economical, educational and racial issues, as well as Latino communities in Dunn, Durham and Charlotte.
- The Chair reported that he and Vice-Chair Cochrane had recently met with the Campus Master Plan Organizational Committee.
- He congratulated the student-athletes and coaching staffs from Carolina's two Atlantic Coast Conference champion teams so far this year: men's basketball and women's field hockey.
    - Expressed gratitude to Coach Roy Williams, Coach Karen Shelton, Athletic Director Bubba Cunningham and the entire athletics department.
- Chair Stone also congratulated the men's tennis team for winning the 2016 D1 Men's ITA Indoor National Championship.
- He offered remarks and personal reflections about the work of Student Body President Houston Summers, thanking Houston for his work on the Board and for the role that he has played as a student leader at Carolina.
- The Chair asked Secretary Duckett to read a resolution of appreciation for Trustee Summers.

RESOLUTION OF APPRECIATION
HOUSTON LEE SUMMERS
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
BOARD OF TRUSTEES
March 24, 2016

WHEREAS, Houston Summers served as President of the University's student body during the 2015-2016 academic year, and eloquently spoke on behalf of his fellow classmates as a valued member of the University's Board of Trustees; and

WHEREAS, Houston proved to be an energetic and highly engaged president who also assembled a talented team in Student Government to partner with him in tackling important and challenging issues and opportunities facing our campus community; and

WHEREAS, Houston's administrative involvement included serving on the search committee for the new dean of the College of Arts and Sciences and as a member of Chancellor Folt's Ethics and Integrity Working Group; and

WHEREAS, Houston brought a unique perspective to his position of student body president as a former professional baseball player who arrived at Carolina with the qualities and drive to become an outstanding javelin thrower, starting as a walk on, and to quickly distinguish himself as a highly respected leader among his fellow student-athletes; and

WHEREAS, those experiences enabled Houston to make a significant contribution to the meetings of the Student-Athlete Academic Initiative Working Group and the larger campus conversation about balancing academics and athletics at Carolina; and

WHEREAS, Houston tirelessly served the University community while deftly balancing those many responsibilities with a personal commitment to academic excellence that recently earned him a Weaver-James-Corrigan Postgraduate Scholarship from the Atlantic Coast Conference for outstanding academic and athletic performance as well as induction into Phi Beta Kappa; and

WHEREAS, Houston, during his service as a trustee, shared valuable feedback and input during our board's decision-making process that reflected the full range of his varied life experiences and his deep and abiding love for our great University; and

NOW, THEREFORE, BE IT RESOLVED THAT the Board of Trustees of the University of North Carolina at Chapel Hill thanks and congratulates Houston Summers for his outstanding service as student body president and wishes him all the best as a soon-to-be Tar Heel alumnus.

Chair Stone called for a motion to approve the resolution. A motion was made by all board members; seconded and unanimously passed.

- The Chair then asked before Trustee Summers' remarks that a video be shown that was made by the Department of Athletics about Houston and his Carolina experience.
- Ended by thanking Trustee Summers for all his contributions to Carolina and the Board over the last year. The Board and audience gave him a standing ovation.

[A copy of these remarks is located in the Office of the Assistant Secretary and at bot.unc.edu.]

STUDENT BODY PRESIDENT'S REMARKS

- Student Body President Houston Summers began his remarks by sharing a quote, "The opportunity of a lifetime only lasts the lifetime of the opportunity".
- He thanked the Board, everyone in the room, and over 350 individuals who served in this year's administration.
- He shared reflections on his time in office and what he set out to accomplish.
- Trustee Summers closed by reminding those in attendance that, as an institution, Carolina needs to preserve its commitment to affordability and the true purposes of higher education.

[A copy of these remarks is located in the Office of the Assistant Secretary and at bot.unc.edu.]

CHANCELLOR'S REMARKS

- Chancellor Folt began her remarks by thanking Trustee Summers for his work over the last year. She also thanked the General Alumni Association for hosting the Board meeting.
- The Chancellor then shared some milestones related to Women's History Month:
    - President Spellings visited campus earlier in the week. Chancellor Folt and President Spellings traveled all over campus meeting with students, faculty and staff.
    - Chancellor Folt announced that Anne-Marie Slaughter will be the May 2016 Commencement Speaker. Ms. Slaughter is a dedicated public servant devoted to solving real life challenges related to work, family and leadership. She also comes from 200 years of North Carolinians, and her great-grandfather's papers are stored here at the University.
    - Earlier this month, four members of the UNC community were recognized at the University Awards for the Advancement of Women:
        - Sheila Kannappan, Associate Professor and Associate Chair for Diversity in the Physics and Astronomy Department
        - Jackie Overton, Training Specialist for Transportation and Parking
        - Mary Rebecca Shen, second year medical student
        - Leslie Morales, first generation college student and senior majoring in Psychology and minoring in Latino/a studies
- The Chancellor then shared some recent successes by several students:
    - Larry Han and Matthew Leming were awarded prestigious Gates Cambridge

Scholarships, which provide full support for graduate study at the University of Cambridge in England.
    - This is the first time Carolina has had two people selected in the same year. Carolina now has five Gates Cambridge Scholars.
    - Han, also received a Schwarzman Scholarship.
  - Marcus Paige received the Skip Prosser Award that is presented to the ACC top scholar-athlete for men's basketball. Marcus also won this award in 2015.
  - Alumna Caroline Zullo '15 was selected as Chapel Hill's first ever Carnegie Junior Fellow. This fellowship is for students interested in international affairs. Caroline is currently teaching English in East Jerusalem through the AMIDEAST Education Abroad Program.
- The Chancellor shared that *U.S. News & World Report* ranked the Eshelman School of Pharmacy #1 among the nation's Doctor of Pharmacy programs in the 2017 edition of "America's Best Graduate Schools."
- Chancellor Folt continued and shared updates from Undergraduate Admissions:
  - Total number of applications received was 35,863 – 11th consecutive record & an increase of 12% over last year. This was also the second highest year-over-year increase in the last 25 years.
  - North Carolinian admissions rate will be at or above 50%.
- She introduced Dr. Terry Magnuson as Vice Chancellor for Research as of July 1, 2016.
  - Dr. Magnuson is the Sarah Graham Kenan professor and founding chair of the department of genetics. He will be succeeding Dr. Barbara Entwisle.
  - Dr. Magnuson was recruited in 2000 as founding chair of the department of genetics and director of the newly established Carolina Center for Genome Sciences. He also created the Cancer Genetics Program in the UNC Lineberger Comprehensive Cancer Center.
  - In July 2010, he was appointed vice dean for research in the School of Medicine, helping to oversee the construction of the University's newest research imaging building Marsico Hall.
  - Dr. Magnuson has been elected to the American Academy of Arts and Sciences, Institute of Medicine of the National Academies, and the National Institutes of Health (NIH) Council of Councils.
- Chancellor Folt shared stories from her recent trip to Washington, D.C.:
  - Met with Senators Burr, Tillis and Alexander about higher education and research.
  - Met with students and alums working on the Hill.
  - In May, she will return to the White House where Joe DeSimone will receive the National Medal of Technology and Innovation.
- She thanked the state and citizens of North Carolina for passing the Connect NC Bond. Also congratulated and thanked UNC staff and Board members who worked so hard to get this passed.
- Chancellor Folt ended her remarks by introducing Dean Kevin Guskiewicz who introduced the presenters.

[A copy of these remarks is located in the Office of the Assistant Secretary and at bot.unc.edu.]

VOCABULARIES OF VULNERABILITY: HUMAN, ANIMAL, BLACKNESS

Dean Guskiewicz introduced Dr. Sharon Holland, Professor and Associate Chair, Department of American Studies. Dr. Holland presented on her new project "Vocabularies of Vulnerability: human, animal, blackness". This project is an investigation of the human/animal distinction and the place of discourse on blackness within that discussion. Following her presentation, Dr. Holland entertained questions from the Board. This presentation can be found on bot.unc.edu

and on file in the Office of the Assistant Secretary.

MAKING: SCIENCE, ENTREPRENEURSHIP, AND THE TRANSFORMATION OF THE UNIVERSITY

Dean Guskiewicz then introduced Dr. Richard Superfine, Taylor-Williams Distinguished Professor of Physics & Astronomy and Applied Physical Sciences. Dr. Superfine presented on his research and the Be a Maker (BeAM) program. He explained projects related to lung and mucus clearance through engineered cilia, and the use of a nanoManipulator to better understand blood clots. Along with colleagues, Dr. Superfine combined engineered cilia and their knowledge of blood clots to create a startup company, Redbud Labs. Through Redbud Labs they have created a test strip to help doctors better understand how to treat patients going through blood transfusions.

The BeAM program aims to bring the best students, faculty and researchers to UNC. They will do this by cultivating a community to imagine, design and create things that solve, fascinate, and inspire. The program hopes to reach out into classrooms and residence halls to bring "making" where students spend most of their time. Their vision is to have 50% of all undergraduate students experiencing BeAM. Following his presentation, Dr. Superfine entertained questions from the Board. This presentation can be found on bot.unc.edu and on file in the Office of the Assistant Secretary.

FRAMING PUBLIC POLICIES

Dean Guskiewicz then introduced Dr. Frank Baumgartner, Richard J. Richardson Distinguished Professor of Political Science. Dr. Baumgartner's work focuses on public policy, agenda-setting and interest groups in American and comparative politics. He shared some of his work, all co-authored by students, on the media coverage of pesticides usage post-WWII; poverty coverage; and the death penalty. Dr. Baumgartner then introduced students Marty Davidson, Kaneesha Johnson, Arvind Krishnamurthy and Colin Wilson to share some of their experiences and to talk about their work. Following their presentation, the group entertained questions from the Board. This presentation can be found on bot.unc.edu and on file in the Office of the Assistant Secretary.

REPORT FROM THE COMMERCIALIZATION & ECONOMIC DEVELOPMENT COMMITTEE

Trustee Caudill presented a review of the Commercialization and Economic Development Committee meeting. There were no action items for this committee in open session. Trustee Caudill then shared the items presented for information:

- A presentation was given about the proposed angel network by:
    - Don Rose, Director of Carolina Venture Services;
    - Bryan McGann, Entrepreneur-in-Residence; and
    - Oakkar Oakkar, Founder of Keona Health, UNC '13 MS Information Science
- Judith Cone, Vice Chancellor for Commercialization and Economic Development, lead a discussion on strategic directions as they relate to creating Innovation Roadmap II.

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary.

REPORT OF THE EXTERNAL RELATIONS COMMITTEE

Trustee Hopkins presented a review of the External Relations Committee meeting. There were no action items for this committee in open session. Trustee Hopkins then shared the items presented for information:

- WUNC Public Radio LLC update by Connie Walker, President and General Manager
- BOG Legislative Policy Update by Jennifer Willis, Assistant Dean for Development, UNC

School of Government and Interim Director of Public Affairs
- Communications Update given by Joel Curran, Vice Chancellor for Communications and Public Affairs
- Development Report given by David Routh, Vice Chancellor for University Development

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary.

REPORT OF THE FINANCE, INFRASTRUCTURE & AUDIT COMMITTEE

Vice Chair Cochrane presented the report from the Finance, Infrastructure and Audit Committee. The following items were presented to the committee for action:

Ordinance Regulating Traffic and Parking

The proposed revisions to the Ordinance Regulating Traffic and Parking to be effective August 15, 2016. The revisions included:

- Date changes
- References to DPS changed to T&P
- Add definitions for main campus and T&P
- Add/remove payment methods
- Update section on meter payments to reflect changed payment requirements
- Update website address
- Article IV. Parking Permits Section 4-1. Parking permits updated:
    - Add sentence to require permit holders to register license plates to cover online registration processes
    - Update student section to current policy

A motion to approve the Ordinance was made by committee; seconded by Trustee Grumbles and passed.

(ATTACHMENT C)

- **Designer Selections**
    - Chase Dining Hall Renovation

      This project will renovate approximately 5,028 square feet of existing meeting rooms and ancillary spaces on the 2nd floor of the Chase Dining Hall into a food service and dining area. The renovation will add seating capacity to the existing dining program located on the lower floor. The project will also address the building accessibility deficiencies. The project budget is $3,850,000 and will be funded by University funds.

      This project was advertised on January 11, 2016. Twelve (12) proposals were received. Four (4) firms were interviewed on February 25, 2016. Members of the Board of Trustees did not participate in the interviews. The committee recommended the selection of the three firms in the following priority order:

      1. Szostak Design, Inc. Chapel Hill, NC
      2. BHDP Architects Raleigh, NC
      3. Mosely Architects Morrisville, NC

      The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

      (ATTACHMENT D)

- o Frank Porter Graham Student Union Feasibility Study

  This feasibility study will evaluate and identify the space requirements for the Frank Porter Graham Student Union. The study will guide future development and identify space improvements needed to meet the program of the Union. The project budget is $299,000 and will be funded by University funds.

  This project was advertised on January 19, 2016. Twelve (12) proposals were received. Six (6) firms were interviewed on March 1, 2016. Members of the Board of Trustees did not participate in the interviews. The committee recommended the selection of the three firms in the following priority order:

  1. Vines Architects — Raleigh, NC
  2. Duda| Paine Architects LLP — Durham, NC
  3. Cannon Design + BBH Design — New York/Raleigh, NC

  The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

  (ATTACHMENT E)

- o Carroll Hall Feasibility Study

  This feasibility study will evaluate and identify the space needs of Carroll Hall for the School of Media and Journalism. The study will identify a space program that will provide a state of the art facility with instructional, research, academic and support spaces that will meet the accreditation requirements for this growing program. The existing building systems will be evaluated and all major deficiencies will be identified. The project budget is $299,000 and will be funded by University funds.

  This project was advertised on January 19, 2016. Twelve (12) proposals were received. Four (4) firms were interviewed on February 29, 2016. Members of the Board of Trustees did not participate in the interviews. The committee recommended the selection of the three firms in the following priority order:

  1. LS3P Associates + Smith Group JJR — Raleigh, NC
  2. EYP, Inc. — Durham, NC
  3. Cannon Design + BBH Design — New York/Raleigh, NC

  The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

  (ATTACHMENT F)

- **Construction Manager at Risk Selection**
  - o Wilson Hall Annex Renovation

    This comprehensive renovation project will provide approximately 61,000 SF of new instructional and research laboratories, support spaces and animal facility for the Department of Biology. The renovation will also address the current building systems, life safety and other deferred maintenance deficiencies. The project budget is $31,450,173 and will be funded by University funds.

    This project was advertised on February 5, 2016. Ten (10) proposals were received. Six (6) firms were interviewed on March 9, 2016. Members of the Board of Trustees did not participate in the interviews. The committee recommended the selection of the three firms in the following priority order:

    1. DPR Construction — Morrisville, NC
    2. Lendlease — Durham, NC

3. SKANSKA/Holt Brothers Durham, NC

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

(ATTACHMENT G)

o Beard Hall Renovation

This project will renovate approximately 13,400 square feet of the existing space on the 2nd floor of Beard Hall into a new classrooms and clinical simulation teaching spaces for the Eshelman School of Pharmacy. The project will also address accessibility deficiencies with the elevator and the restrooms and replace a failing building HVAC system located in the attic. The project budget is $9,713,728 and will be funded by University funds.

This project was advertised on February 11, 2016. Thirteen (13) proposals were received. Four (4) firms were interviewed on March 14, 2016. Members of the Board of Trustees did not participate in the interviews. The committee recommended the selection of the three firms in the following priority order:

1. Holt Brothers Construction Raleigh, NC
2. W.M. Jordan / Bordeaux Durham, NC
3. Barnhill Contracting Co. / D.A. Everett Raleigh, NC

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

(ATTACHMENT H)

A motion was made from committee to approve the designer and construction manager at risk selections; it was seconded by Trustee Curtis and passed unanimously.

Vice Chair Cochrane briefly reviewed the other items presented to committee for information only:

- Review of the Comprehensive Annual Financial Report by Brian Smith, Assistant Vice Chancellor for Financial and Accounting Operations
- Development Report given by David Routh, Vice Chancellor for University Development
- Sustainability Plan given by Brad Ives, Associate Vice Chancellor for Campus Enterprises
- Financial Update given by Matt Fajack, Vice Chancellor for Finance and Administration

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary.

REPORT OF THE UNIVERSITY AFFAIRS COMMITTEE

Secretary Duckett presented the report from the University Affairs Committee. There were two action items for this committee in open session:

Discontinuation of the James B. Hunt, Jr., Institute for Educational Policy and Leadership

In February 2015, the UNC Board of Governors instructed UNC-Chapel Hill to conduct reviews on the following centers and institutes and share information about these reviews to the Board of Trustees:

- Carolina Center for Public Service
- Carolina Women's Center, to include an assessment of the level of sexual assault counseling required at UNC-CH

- Center for Civil Rights
- Center for Faculty Excellence
- James B. Hunt, Jr., Institute for Educational Policy and Leadership.

Following this review, the Centers and Institutes Review Committee along with leadership at the James B. Hunt, Jr., Institute for Educational Policy and Leadership concluded that it would be in the best interest of both parties to discontinue the Institute's affiliation with UNC Chapel Hill as of July 1, 2016. A motion was made from committee to approve the discontinuation; it was seconded by Trustee Keyes and passed.

(ATTACHMENT I)

Management Flexibility Survey

Provost Dean shared the 2014-15 Management Flex Survey that is reported annually to UNC General Administration. The survey includes a summary of personnel actions covered by UNC-CH's management flexibility agreement. A motion to approve the survey was made by committee; seconded by Vice Chair Cochrane and passed.

(ATTACHMENT J)

Secretary Duckett continued and shared the items which were presented for information:

- Presentation on the University Ombuds Office given by Wayne Blair, Director and University Ombudsman
- Task Force on UNC-Chapel Hill History given by Winston Crisp, Vice Chancellor for Student Affairs; Amy Locklear Hertel, Director of the American Indian Center; and Jim Leloudis, Professor of History and Associate Dean for Honors Carolina
- Working Groups on Ethics and Integrity and Policy and Procedures given by Jean Elia, Associate Provost for Strategy and Special Projects and Todd Nicolet, Senior Associate Dean for Operations at the Gillings School of Global Public Health and Interim Chief Integrity and Policy Officer

A full review of the committee meeting may be found in the committee minutes in the Office of the Assistant Secretary.

MOTION TO CONVENE IN CLOSED SESSION

On motion of Secretary Duckett, and duly seconded, the Board voted to convene in closed session pursuant to North Carolina General Statutes Section 143-318.11 (a) (1) (to prevent the disclosure of privileged information under Section 126-22 and the following); and also pursuant to Section 143-318.11 (a) (2), (3), (5), and (6).

RECONVENE MEETING IN OPEN SESSION

Chair Stone made a motion to reconvene the meeting in open session; it was seconded and passed.

OPEN SESSION

REPORT OF THE UNIVERSITY AFFAIRS COMMITTEE

Secretary Duckett referred the members to the personnel matters submitted for review. A motion to approve the actions was made from committee; it was seconded by Vice Chair Cochrane, and passed. Chair Stone stated that the personnel and salary actions voted on in open session had been distributed.

(ATTACHMENT K)

ADJOURNMENT

There being no further business to come before the Board, Chair Stone called for a motion to adjourn. The motion was made by Trustee Curtis, seconded by Trustee Keyes and passed. Chair Stone adjourned the meeting at 1:30 p.m.

_____

Dwayne Pinkney, Assistant Secretary

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919.962.1365
F 919.962.1647
carol.folt@unc.edu

TO: Members of the Board of Trustees

FROM: Carol L. Folt

RE: Personnel Mail Ballot

DATE: April 7, 2016

You have authorized me to poll you by mail ballot concerning personnel matters which require the immediate attention of the Board.

I am seeking approval to appoint Dr. Fouad Abd-El-Khalick as Dean of the School of Education. The appointment is effective July 1, 2016. Attached is the formal offer letter and a copy of Dr. Khalick's CV.

Please complete the attached mail ballot and return to TJ Scott at your earliest convenience.

Vita

Fouad Abd-El-Khalick
Department of Curriculum and Instruction
College of Education
University of Illinois at Urbana-Champaign

38E Education Building, MC–708
1310 South Sixth Street
Champaign, IL 61820–6990

E-mail: fouad@illinois.edu
Work phone: (217) 244-1221
Home phone: (217) 359-5737

Education

1998	Ph.D.	Oregon State University, Corvallis, OR, USA Science Education Dissertation title: "The influence of history of science courses on students' conceptions of the nature of science"* Minor: History and Philosophy of Science
1995	M.A.	American University of Beirut, Beirut, Lebanon Science Education Thesis title: "A study of the pedagogical content knowledge of science teachers"
1993	T.D.	American University of Beirut, Beirut, Lebanon Teaching Secondary Science
1991	B.Sc.	American University of Beirut, Beirut, Lebanon Biology

Professional Work Experience

2014–present	**Grayce Wicall Gauthier Professor of Education,** College of Education, University of Illinois at Urbana-Champaign, IL.
2014–present	**Associate Dean for Research & Research Education,** College of Education, University of Illinois at Urbana-Champaign, IL.
2014–2017	**Distinguished Research Associate,** Faculty of Education, University of Johannesburg, South Africa.
2011–2015	**Head,** Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, IL.
2010–present	**Professor of Science Education (with Tenure),** Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, IL.

*Awarded the *Outstanding Dissertation Award* by the National Association for Research in Science Teaching, March 29, 1999, Boston, MA.

2004–present	**Faculty Member,** Center for South Asian & Middle Eastern Studies, University of Illinois at Urbana-Champaign, IL.
2009–2011	**Director, STEM Education Collaborative,** College of Education, University of Illinois at Urbana-Champaign, IL.
2004–2009	**Associate Professor of Science Education (with Tenure),** Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, IL.
2004–2006	**Division Chair, MST (Mathematics, Science, and Technology),** Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, IL.
2000–2004	**Assistant Professor of Science Education,** Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, IL.
1998–2000	**Assistant Professor of Science Education,** American University of Beirut, Beirut, Lebanon.
1997–1998	**Teaching Assistant, General Chemistry, Chemistry Department,** Oregon State University, Corvallis, OR.
1996–1998	**Supervisor, Master of Arts in Teaching (MAT) Program, Department of Science & Mathematics Education,** Oregon State University, Corvallis, OR.
1995–1996	**Research Assistant, Department of Science & Mathematics Education,** Oregon State University, Corvallis, OR.
1994–1995	**Research Assistant, Science & Mathematics Education Center (SMEC),** American University of Beirut, Beirut, Lebanon.
1994–1995	**Science Teacher, International College,** Beirut, Lebanon.

Grants

2015–2019	**National Science Foundation; Directorate for Engineering; Division for Engineering Education and Centers; Engineering Research Centers.** "Power Optimization of Electro-Thermal Systems" (P.O.E.T.S). Fouad Abd-El-Khalick, Co-Director, Education and Workforce Development. ($18,500,000)
2012–2013	**INSPIRE: Illinois-Sweden Program for Educational and Research Exchange, Illinois Strategic International Partnerships (ISIP), International Programs and Studies, University of Illinois at Urbana-Champaign.** "Inquiry and Nature of Science in Precollege Classrooms: Epistemology, Language, and Practice Within and Across American and Swedish Contexts." Fouad Abd-El-Khalick: Principal Investigator. ($5,000)

2010–2013	**Qatar Foundation; Qatar National Research Fund; National Priorities Research Program.** "Qatari students' Interest in, and Attitudes toward Science" (QIAS). Fouad Abd-El-Khalick: Co-Principal Investigator. ($1,031,878)
2009–2014	**National Science Foundation; Division of Undergraduate Education; MSP–Teacher Institutes.** "Entrepreneurial Leadership in STEM Teaching & learning" (EnLiST). Fouad Abd-El-Khalick: Co-Principal Investigator. ($5,000,000) [Fouad Abd-El-Khalick: Principal Investigator; Curriculum & Instruction EnLiST sub-ledger; $3,630,923]
2009–2012	**Qatar Foundation; Qatar National Research Fund; National Priorities Research Program.** "Qatar Science Teachers Energy Project" (QSTEP). Fouad Abd-El-Khalick: Co-Principal Investigator. ($578,998)
2002–2008	**National Science Foundation; Division of Undergraduate Education; Science, Technology, Engineering and Mathematics Teacher Preparation (STEMTP).** "An Alternative Program for Recruiting, Educating, Certifying, and Retaining Underrepresented Populations in Teaching Science and Mathematics" (RECRUIT). Fouad Abd-El-Khalick: Principal Investigator. ($866,015)
2004–2006	**The McCarthey Dressman Education Foundation.** "Egyptian Teacher Opportunities for Professional Growth (Egyptian TOP G-rants)." Fouad Abd-El-Khalick: Principal Investigator. ($35,000)
2004–2005	**Campus Research Board, University of Illinois at Urbana-Champaign.** Research project titled, "The development of global and science epistemologies during the school years." Fouad Abd-El-Khalick: Principal Investigator. ($12,780)
2002–2003	**Hewlett Packard Mobile Computing K-12 Classroom Grant.** Fouad Abd-El-Khalick: Co-Principal Investigator (Mark Dressman: Principal Investigator). "Using technology to enhance achievement in math, science, and literacy: A middle school-university partnership." ($128,934)
2001–2002	**Faculty Fellows Program**, **Bureau of Educational Research, College of Education, UIUC.** Research project titled, "The development of global and science epistemologies during the school years." Fouad Abd-El-Khalick: Principal Investigator. ($15,000)
2000–2001	**Campus Research Board, University of Illinois at Urbana-Champaign.** Research project titled, "The development of views about the nature of scientific knowledge and knowing in the middle and high school years." Fouad Abd-El-Khalick: Principal Investigator. ($12,517)
1999–2000	**University Research Board Grant, American University of Beirut** (DCU 1799 6077 401). Research project titled, "Do students' views of nature of science influence their conceptual understandings of science content?" Fouad Abd-El-Khalick: Principal Investigator. ($3,000)

1998–1999 **University Research Board Grant, American University of Beirut** (DCU 1799 6077 302). Research project titled, "The development of Lebanese students' conceptions of science in the middle and high school years." Fouad Abd-El-Khalick: Principal Investigator. ($3,000)

Awards and Professional Honors

Entrepreneurial Excellence: Social Venture Award ("Recognizes those who serve as change agents by creating and implementing sustainable solutions to reshape society, benefit humanity, address social concerns."), Innovation Celebration, Champaign County Economic Development Corporation, Champaign, Illinois, February, 2014.

Fellow, Committee on Institutional Cooperation, Academic Leadership Program, 2013-2014.

Fellow, American Association for the Advancement of Science (elected, 2011).

Special recognition for the scope, quality, and impact of scholarship, teaching, and engagement. One of four faculty members selected for special recognition from nearly 100 cases of promotion and/or tenure (2009-2010). Awarded by the Vice Chancellor for Academic Affairs, University of Illinois at Urbana-Champaign; July, 2010. ($3,000)

Research

The *2014 Robert Ferber Dissertation Award*, Survey Research Laboratory, University of Illinois at Urbana-Champaign. Awarded to Ryan Summers on June 23, 2014, Champaign, IL. Fouad Abd-El-Khalick: Advisor and Dissertation Director. ($2,000)

College of Education Distinguished Senior Scholar Award, College of Education, University of Illinois at Urbana-Champaign (2011-2012). Awarded April 13, 2011. ($2,500)

The National Association for Research in Science Teaching (NARST) *Outstanding Doctoral Dissertation Award: Second Place and Honorable Mention*. Awarded to Ava Zeineddin on April 19, 2009. Garden Grove, CA. Fouad Abd-El-Khalick: Advisor and Dissertation Director.

University Scholar, University Scholars Program, University of Illinois at Urbana-Champaign (2006-2009). Awarded February 20, 2006. ($ 30,000)

College of Education Distinguished Scholar Award, College of Education, University of Illinois at Urbana-Champaign (2005-2006). Awarded June 28, 2005. ($1,500)

The National Association for Research in Science Teaching (NARST) *The NARST Early Research Career Award*. Awarded March 25, 2003, Philadelphia, PA.

Faculty Fellow, Bureau of Educational Research, College of Education, University of Illinois at Urbana-Champaign (2001-2002).

The National Association for Research in Science Teaching (NARST) *Journal of Research in Science Teaching Award*. Awarded March 27, 2001, St. Louis, MO.

The National Association for Research in Science Teaching (NARST) *Outstanding Master's Thesis Award*. Awarded to Rola Khishfe on April 30, 2000, New Orleans, LA. Fouad Abd-El-Khalick: Advisor and Thesis Director.

The National Association for Research in Science Teaching (NARST) *Outstanding Doctoral Dissertation Award*. Awarded March 29, 1999, Boston, MA.

Teaching

Listed in the "List of Teachers Ranked Excellent by Their Students," University of Illinois at Urbana-Champaign:

Fall 2010: C&I 542
Fall 2009: C&I 507–PF
Spring 2008: C&I 590–PS
Fall 2007: C&I 542

Listed in the "Incomplete List of Teachers Ranked Excellent by Their Students," University of Illinois at Urbana-Champaign:

Fall 2006: C&I 542
Spring 2005: C&I 402
Fall 2004: C&I 542
Spring 2004: C&I 302–S and C&I 490-RTS
Fall 2003: C&I 301–S and C&I 442
Spring 2003: C&I 302–S
Spring 2002: C&I 302–S and C&I 490–PFS
Fall 2001: C&I 301–S
Spring 2001: C&I 302–S and C&I 490–PFS

Outstanding Undergraduate Teaching Award for Faculty, College of Education, University of Illinois at Urbana-Champaign. Awarded May 6, 2004.

Teacher of the Year Award. Awarded by the Education Students Society, Department of Education, American University of Beirut, Beirut, Lebanon, June, 2000.

The Chemistry Department Laboratory TA Award, Chemistry Department, Oregon State University, Corvallis, OR, Winter 1998.

Editorships

2015–2019	Co-Editor, *Journal of Research in Science Teaching*.
2013–2017	Associate Editor, *Journal of Science Teacher Education.*
2004–2009	Associate Editor, *Journal of Research in Science Teaching.*
2001–2006	Associate Editor, *School Science and Mathematics.*

Publications

Refereed Journal Articles

Abd-El-Khalick, F., Summers, R., Said, Z., Wang, S., & Culbertson, M. (2015). Development and large-scale validation of an instrument to assess Arabic-speaking students' attitudes toward science. *International Journal of Science Education*, *37*(16), 2637-2663.

Abed, O. H., & Abd-El-Khalick, F. (2015). Jordanian pre-service primary teachers' perceptions of mentoring in science teaching. *International Journal of Science Education, 37*(4), 703-726.

Wahbeh, N., & Abd-El-Khalick, F. (2014). Revisiting the translation of nature of science understandings into instructional practice: Teachers' nature of science pedagogical context knowledge. *International Journal of Science Education, 36*(3), 425-466.

Houseal, A., Abd-El-Khalick, F., & DeStefano, L. (2014). Impact of a student-teacher-scientist partnership on students' and teachers' content knowledge, attitudes toward science, and pedagogical practices. *Journal of Research in Science Teaching, 51*(1), 84-115.

Abd-El-Khalick, F. (2013). Teaching *with* and *about* nature of science, and science teacher knowledge domains. *Science & Education, 22*(9), 2087-2107.

Cope, W., Kalantzis, M., Abd-El-Khalick, F., & Bagley, E. (2013). Science in writing: Learning scientific argument in principle and practice. *E-Learning and Digital Media, 10*(4), 420-441.

Waight, N., & Abd-El-Khalick, F. (2012). Nature of technology: Implications for design, development, and enactment of technological tools in school science classrooms. *International Journal of Science Education, 34*(18), 2875-2905.

Schwartz, R., Lederman, N., & Abd-El-Khalick, F. (2012). A series of misrepresentations: A response to Allchin's whole approach to assessing nature of science understandings. *Science Education, 96*(4), 685-692.

Abd-El-Khalick, F. (2012). Examining the sources for our understandings about science: Enduring conflations and critical issues in research on nature of science in science education. *International Journal of Science Education, 34*(3), 353-374.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2011). Perceptions of the nature and "goodness" of argument among college students, science teachers, and scientists. *International Journal of Science Education, 33*(4), 573-605.

Waight, N., & Abd-El-Khalick, F. (2011). From scientific practice to high school science classrooms: Transfer of scientific technologies and the realization of authentic inquiry. *Journal of Research in Science Teaching, 48*(1), 37-70.

Zeineddin, A., & Abd-El-Khalick, F. (2010). Scientific reasoning and epistemological commitments: Coordination of theory and evidence among college science students. *Journal of Research in Science Teaching, 47*(9), 1064-1093.

Salloum, S., & Abd-El-Khalick, F. (2010). A study of practical-moral knowledge in science teaching: Case studies in physical science classrooms. *Journal of Research in Science Teaching*, *47*(8), 929-951.

Abd-El-Khalick, F., & Akerson, V. L. (2009). The influence of metacognitive training on preservice elementary teachers' conceptions of nature of science. *International Journal of Science Education, 31*(16), 2161-2184.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2008). The influence of mind mapping on eighth graders' science achievement. *School Science and Mathematics, 108*(7), 298-312.

Dogan, N., & Abd-El-Khalick, F. (2008). Turkish grade 10 students' and science teachers' conceptions of nature of science: A national study. *Journal of Research in Science Teaching, 45*(10), 1083-1112.

Abd-El-Khalick, F., Waters, M., & Le, A. (2008). Representations of nature of science in high school chemistry textbooks over the past four decades. *Journal of Research in Science Teaching, 45*(7), 835-855.

Zeineddin, A., & Abd-El-Khalick, F. (2008). On coordinating theory with evidence: The role of epistemic commitments in scientific reasoning among college students. *Eurasia Journal of Mathematics, Science & Technology Education, 4*(2), 159-174.

Abd-El-Khalick, F., & Akerson, V. L. (2007). On the role and use of "theory" in science education research: A response to Johnston, Southerland, and Sowell. *Science Education, 91*(1), 187-194.

Waight, N., & Abd-El-Khalick, F. (2007). The impact of technology on the enactment of "inquiry" in a technology enthusiast's sixth grade science classroom. *Journal of Research in Science Teaching, 44*(1), 154-182.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2006). Argumentative discourse in a high school chemistry classroom. *School Science and Mathematics, 106*(8), 349-361.

Abd-El-Khalick, F. (2006). Preservice and experienced biology teachers' global and specific subject matter structures: Implications for conceptions of pedagogical content knowledge. *Eurasia Journal of Mathematics, Science & Technology Education, 2*(1), 1-29.

Lee, H., Abd-El-Khalick, F., & Choi, K. (2006). Korean science teachers' perceptions of the introduction of socioscientific issues into the science curriculum. *Canadian Journal of Science, Mathematics and Technology Education, 6*(2), 97-117.

Abd-El-Khalick, F. (2005). Developing deeper understandings of nature of science: The impact of a philosophy of science course on preservice science teachers' views and instructional planning. *International Journal of Science Education, 27*(1), 15-42.

Akerson, V. L., & Abd-El-Khalick, F. (2005). "How should I know what scientists do–I am just a kid": Fourth-grade students' conceptions of nature of science! *Journal of Elementary Science Education, 17*(1), 1-11.

Abd-El-Khalick, F., & Akerson, V. L. (2004). Learning as conceptual change: Factors that mediate the development of preservice elementary teachers' views of nature of science. *Science Education, 88*(5), 785-810.

Abd-El-Khalick, F., BouJaoude, S., Duschl, R. A., Hofstein, A., Lederman, N. G., Mamlok, R., Niaz, M., Treagust, D., & Tuan, H. (2004). Inquiry in science education: International perspectives. *Science Education, 88*(3), 397-419.

BouJaoude, S., Salloum, S., & Abd-El-Khalick, F. (2004). Relationships between selective cognitive variables and students' ability to solve chemistry problems. *International Journal of Science Education, 26*(1)*,* 63-84.

Akerson, V. L., & Abd-El-Khalick, F. (2003). Teaching elements of nature of science: A yearlong case study of a fourth grade teacher. *Journal of Research in Science Teaching, 40*(10), 1025-1049.

Niaz, M., Abd-El-Khalick, F., Benarroch, A., Cardellini, L., Laburú, C. E., Marín, N., Montes, L. A., Nola, R., Orlik, Y., Scharmann, L. C., Tsai, C., & Tsaparlis, G. (2003). Constructivism: Defense or a continual critical appraisal: A response to Gil-Pérez, et al. *Science & Education, 12*(8)*,* 787-797.

Abd-El-Khalick, F., & BouJaoude, S. (2003). Lebanese middle school students' views of nature of science. *Mediterranean Journal of Educational Studies, 8*(1), 61-79.

Haidar-Makki, M., Abd-El-Khalick, F., & BouJaoude, S. (2003). Lebanese secondary school students' environmental knowledge and attitudes. *Environmental Education Research, 9*(1), 21-33.

Khishfe, R., & Abd-El-Khalick, F. (2002). Influence of explicit reflective versus implicit inquiry-oriented instruction on sixth graders' views of nature of science. *Journal of Research in Science Teaching, 39*(7), 551-578.

Abd-El-Khalick, F. (2002). Images of nature of science in middle grade science trade books. *The New Advocate, 15*(2), 121-127.

Lederman, N. G., Abd-El-Khalick, F., Bell, R. L., & Schwartz, R. (2002). Views of nature of science questionnaire (VNOS): Toward valid and meaningful assessment of learners' conceptions of nature of science. *Journal of Research in Science Teaching, 39*(6), 497-521.

Abd-El-Khalick, F. (2002). Rutherford's enlarged: A content-embedded activity to teach about nature of science. *Physics Education, 37*(1), 64-68.

Zeineddin, A., & Abd-El-Khalick, F. (2001). Doing the right thing versus doing the right thing right: Concept mapping in a freshmen physics laboratory. *European Journal of Physics, 22(5)*, 501-511.

Abd-El-Khalick, F. (2001). Embedding nature of science instruction in preservice elementary science courses: Abandoning scientism, but . . . *Journal of Science Teacher Education, 12*(3), 215-233.

Lederman, N. G., Schwartz, R., Abd-El-Khalick, F., & Bell, R. L. (2001). Preservice teachers' understanding and teaching of nature of science: An intervention study. *Canadian Journal of Science, Mathematics and Technology Education, 1*(2), 135-160.

Bell, R. L., Abd-El-Khalick, F., Lederman, N. G., McComas, W. F., & Matthews, M. R. (2001). The nature of science and science education: A bibliography. *Science & Education*, *10*(1/2), 187-204.

Abd-El-Khalick, F., & Lederman, N. G. (2000). The influence of history of science courses on students' views of nature of science. *Journal of Research in Science Teaching*, *37*(10), 1057-1095.*

Bell, R. L., Lederman, N. G., & Abd-El-Khalick, F. (2000). Developing and acting upon one's conceptions of the nature of science: A follow-up study. *Journal of Research in Science Teaching, 37*(6)*,* 563-581.

Abd-El-Khalick, F., & Lederman, N. G. (2000). Improving science teachers' conceptions of the nature of science: A critical review of the literature. *International Journal of Science Education, 22*(7), 665-701.

Schwartz, R., Abd-El-Khalick, F., & Lederman, N. G. (2000). Achieving the reforms vision: The effectiveness of a specialists-led elementary science program. *School Science and Mathematics, 100*(4), 181-193.

Akerson, V. L., Abd-El-Khalick, F., & Lederman, N. G. (2000). Influence of a reflective explicit activity-based approach on elementary teachers' conceptions of nature of science. *Journal of Research in Science Teaching, 37*(4), 295-317.

Abd-El-Khalick, F. (1999). Teaching science with history: Using Mars and Saturn to teach about the relationship between theory and observation. *The Science Teacher, 66*(9), 18-22.

Abd-El-Khalick, F., Bell, R. L., & Lederman, N. G. (1998). The nature of science and instructional practice: Making the unnatural natural. *Science Education, 82*(4), 417-436.

Bell, R. L., Lederman, N. G., & Abd-El-Khalick, F. (1998). Implicit and explicit approaches to teaching the nature of science: An explicit response to Palmquist and Finley. *Journal of Research in Science Teaching, 35*(9), 1057-1061.

Abd-El-Khalick, F., & BouJaoude, S. (1997). An exploratory study of the knowledge base for science teaching. *Journal of Research in Science Teaching, 34*(7), 673-699.

Book Chapters

Waight, N., & Abd-El-Khalick, F. (in press). Technology, culture, and values: Implications for enactment of technological tools in precollege science classrooms. In Y. J. Dori, Z. Mevareach, & D. Baker (Eds.), *Cognition, metacognition and culture in STEM education.* New York: Springer.

Abd-El-Khalick, F., Lederman, N. G., & Schwartz, R. (2015). Inquiry, as a curriculum strand. In R. Gunstone (Ed.), *Encyclopedia of science education* (510-514). Dordrecht, The Netherlands: Springer.

Lederman, N. G., Schwartz, R., & Abd-El-Khalick, F. (2015). Nature of science, assessing of. In R. Gunstone (Ed.), *Encyclopedia of science education* (pp. 694-698). Dordrecht, The Netherlands: Springer.

* Awarded the *Journal of Research in Science Teaching Award* by the National Association for Research in Science Teaching, March 27, 2001, St. Louis, MO.

Lederman, N., Abd-El-Khalick, F., & Schwartz, R., (2015). Nature of science, measurement of. In R. Gunstone (Ed.), *Encyclopedia of science education* (pp. 704-708). Dordrecht, The Netherlands: Springer.

Lederman, N. G., Schwartz, R., & Abd-El-Khalick (2015). History of science, assessing knowledge of. In R. Gunstone (Ed.), *Encyclopedia of science education* (pp. 462-465). Dordrecht, The Netherlands: Springer.

Abd-El-Khalick, F. (2014). The evolving landscape related to assessment of nature of science. In N. G. Lederman & S. K. Abell (Eds.), *Handbook of research on science education (2nd ed.)* (pp. 621-650). Mahwah, NJ: Lawrence Erlbaum.

Abd-El-Khalick, F. (2012). Nature of science in science education: Toward a coherent framework for synergistic research and development. In B. J. Fraser, K. Tobin, & McRobbie, C. (Eds.), *Second international handbook of science education (Vol. 2)* (pp. 1041-1060). The Netherlands: Springer.

Abd-El-Khalick, F. (2009). Professional development through applied engagement: Egyptian Teacher Opportunities for Professional Growth Grants. In S. BouJaoude & Z. Dagher (Eds.), *The world of science education: Arab States* (pp. 83-106). Rotterdam, The Netherlands: Sense.

BouJaoude, S., Abd-El-Khalick, F., & El-Hage, F. (2009). Science education research in Lebanon (2003–2008): Trends and issues. In S. BouJaoude & Z. Dagher (Eds.), *The world of science education: Arab States* (pp. 221-256). Rotterdam, The Netherlands: Sense.

Abd-El-Khalick, F. (2008). Modeling science classrooms after scientific laboratories. In R. A. Duschl & R. E. Grandy (Eds.), *Teaching scientific inquiry: Recommendations for research and application* (pp. 80-85). Rotterdam, The Netherlands: Sense.

Abd-El-Khalick, F. (2007). The impact of a systemic reform initiative on primary Nigerian teachers' instructional practices: A longitudinal study. In C. Szymanski-Sunal & K. Mutua (Eds.), *Research on education in Africa, the Caribbean, and the Middle East: Book IV: The enterprise of education* (pp. 165-191). Greenwich, CT: Information Age Press.

Lederman, N. G., Lederman, J., & Abd-El-Khalick, F. (2006). Alternative certification: Aspirations and realities. In J. Rhoton & P. Shane (Eds.), *Teaching science in the 21st century* (pp. 257-272). Arlington, VA: National Science Teachers Association.

Abd-El-Khalick, F. (2005). Instructional technology in secondary science teaching. In I. Osta (Ed.), *Education and information technology in the Arab countries: Issues and trends* (pp. 329-355). Beirut, Lebanon: Lebanese Association for Educational Sciences. (In Arabic)

Abd-El-Khalick, F., & Lederman, N. G. (2005). Improving science teachers' conceptions of nature of science: A critical review of the literature. In J. K. Gilbert (Ed.), *Science education: Major themes in education* (pp. 339-384). New York: Routledge. (Reprinted from *International Journal of Science Education*, *22*, pp. 665-701, 2000)

BouJaoude, S., Sawwan, S., & Abd-El-Khalick, F. (2005). The effect of using drama in science teaching on students' conceptions of nature of science. In K. Boersma, H., Goedhart, M., de Jong, O., & Eijkelhof, H. (Eds.), *Research and the quality of science education* (pp. 259-267). Dordrecht, The Netherlands: Kluwer.

Abd-El-Khalick, F. (2005). History and nature of science: Active transport might work but osmosis does not! In N. Sanitt (Ed.), *Motivating science: Science communication from a philosophical, educational, and cultural perspective* (pp. 123-130). Luton, UK: Pantaneto.

BouJaoude, S., & Abd-El-Khalick, F. (2004). A decade of science education research in Lebanon (1992-2002): Trends and issues. In K. Mutua & C. Szymanski-Sunal (Eds.), *Research on education in Africa, the Caribbean, and the Middle East: An historic overview* (pp. 203-241). Greenwich, CT: Information Age Press.

Abd-El-Khalick, F. (2004). Over and over and over again: College students' views of nature of science. In L. B. Flick & N. G. Lederman (Eds.), *Scientific inquiry and nature of science: Implications for teaching, learning, and teacher education* (pp. 389-425). Dordrecht, The Netherlands: Kluwer.

Abd-El-Khalick, F. (2003). Socioscientific issues in pre-college science classrooms: The primacy of learners' epistemological orientations and views of nature of science. In D. L. Zeidler (Ed.), *The role of moral reasoning in socioscientific issues and discourse in science education* (pp. 41-61). Dordrecht, The Netherlands: Kluwer.

Lederman, N. G., Abd-El-Khalick, F., & Bell, R. L. (2001). If we want to talk the talk we must also walk the walk: The nature of science, professional development and educational reform. In J. Rhoton & P. S. Bowers (Eds.), *Professional development: Planning and design* (pp. 25-42). Arlington, VA: National Science Teachers Association Press.

Abd-El-Khalick, F. (1999). Nature of science: What is it? Why is it important? And what attention is it accorded in the new Lebanese science curriculum? In F. Ayoub (Ed.), *The new school curricula in Lebanon: An evaluative perspective* (pp. 117-136). Beirut, Lebanon: Lebanese Association for Educational Sciences. (In Arabic)

Lederman, N. G., & Abd-El-Khalick, F. (1998). Avoiding de-natured science: Activities that promote understandings of the nature of science. In W. McComas (Ed.), *The nature of science in science education: Rationales and strategies* (pp. 83-126). Dordrecht, The Netherlands: Kluwer.

Editorials

Abd-El-Khalick, F., & Zeidler, D. L. (2016). On the 'fabric' of our global science education research community: The art and science of writing for the *Journal of Research in Science Teaching*. *Journal of Research in Science Teaching, 53*(1).

Abd-El-Khalick, F., & Zeidler, D. L. (2015). New horizons for the Journal of Research in Science Teaching. *Journal of Research in Science Teaching, 52*(3), 263-267.

Invited / Non-Refereed Articles

Abd-El-Khalick, F. (2013). Commentary: The role of inquiry in science teaching [Rutherford, F. J. (1964)]. *Journal of Research in Science Teaching,* 50th Anniversary Virtual Issue. Available http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291098-2736/homepage/50th_anniversary_virtual_issue.htm

Abd-El-Khalick, F. (2013). Commentary: Students' and teachers' understandings of the nature of science: A review of the research [Lederman, N. G. (1992)]. *Journal of Research in Science Teaching,* 50th Anniversary Virtual Issue. Available http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291098-2736/homepage/50th_anniversary_virtual_issue.htm

Lederman, N. G., Lederman, J. S., & Abd-El-Khalick, F. (2007). Alternative certification: An alternative perspective. *NSTA Reports, 18*(8), 6-7.

Lederman, N. G., Lederman, J. S., & Abd-El-Khalick, F. (2006). Alternative certification: Aspirations and realities. *NSTA Reports, 18*(2), 6-8.

Abd-El-Khalick, F. (2001). History and nature of science: Active transport might work but osmosis does not! *The Pantaneto Forum* [On-line]*, 3*. Available: http://www.pantaneto.co.uk/issue3/Fouad.htm

Abd-El-Khalick, F. (2001). History of science, science education, and nature of science: Conceptual change, discourse, collaboration, and other oversights! *History of Science Society Newsletter, 30*(1), 8-9.

Lederman, N. G., Farber, P. L., Abd-El-Khalick, F., & Bell, R. L (1998). The myth of the scientific method and slippery debates in the classroom: A response to McCreary. *The Oregon Science Teacher, 39*(4), 24-27.

Abd-El-Khalick, F. (1996). Traditional and contemporary views of the nature of science. *Sci-Quest, 6*(1), 29-30, 33.

Book Reviews

Abd-El-Khalick, F. (2006). Choose a career in science. *Science Books & Films, 42*(5), 209.

Abd-El-Khalick, F. (2004). Inquiring safely: A guide for middle school teachers. *Science Books & Films, 40*(2), 66.

Abd-El-Khalick, F. (2003). Isaac Newton and Albert Einstein (from the Scientists Who Made History Series). *Science Books & Films, 39*(2), 69-70.

Abd-El-Khalick, F. (2001). Transforming middle school science education. *Journal of Curriculum Studies*, *33*(3), 382-386.

Manuscripts Under Review

Brunner, J. L., & Abd-El-Khalick, F. (submitted). Representations of nature of science in U.S. elementary trade books. In C. McDonald & F. Abd-El-Khalick (Eds.), *Representations of nature of science in school science textbooks: Global perspectives.* New York: Routledge.

Said, Z., Summers, R., Abd-El-Khalick, F., & Wang, S. (under review). Attitudes toward science among grades 3 through 12 Arab students in Qatar: Findings from a cross-sectional national study. *International Journal of Science Education*.

Abd-El-Khalick, F., Myers, J., Summers, R., Waight, N., Belarmino, J., Brunner, J., Wahbeh, N., & Zeineddin, A. (under review). A longitudinal analysis of the prominence and representations of nature of science in U.S. high school biology and physics textbooks. *Journal of Research in Science Teaching*.

Myers, J., & Abd-El-Khalick, F. (under review). "A ton of faith in science!": Ideas about science and epistemology generated upon watching a sci-fi film. *Journal of Research in Science Teaching.*

Said, Z., Summers, R., Abd-El-Khalick, F., & Wang, S. (under review). Attitudes toward science among Grade 3 through 12 Arab students in Qatar: Findings from a cross-sectional national study. *International Journal of Science Education.*

Manuscripts in Preparation

McDonald, C., & Abd-El-Khalick, F. (Eds.) (under contract). *Representations of nature of science in school science textbooks: Global perspectives.* New York: Routledge.

Abd-El-Khalick, F. (in preparation). The development of students' science and global epistemologies in the middle and high school years: Results from a cross-sectional study. *Journal of Research in Science Teaching.*

Abd-El-Khalick, F., & Schroyer, M. (in preparation). Examining transformations in district-wide teacher learning networks through social network analysis. *International Journal of Science Education.*

Reports / Commissioned Papers

Abd-El-Khalick, F. (2011). *Consolidated Classroom Observation Tool for Public Education in Lebanon.* Report prepared for the Developing Rehabilitation Assistance to Schools And Teacher Improvement (D-RASATI) Project, Beirut, Lebanon.

Abd-El-Khalick, F. (2011). *An analysis of the Lebanese Ministry of Education and Higher Education instructional practice classroom observation tools.* Report prepared for the Developing Rehabilitation Assistance to Schools And Teacher Improvement (D-RASATI) Project, Beirut, Lebanon.

Abd-El-Khalick, F. (2010). *SCOPE baseline report: Education Quality and Access for Learning and Livelihood Skills (EQuALLS).* Report prepared for the EQuALLS Project, Manila, the Philippines.

Abd-El-Khalick, F., & Summers, R. (2010). *Science curriculum framework mapping for grades 1–10: Nile Egyptian Schools versus the Finnish National Science Curriculum.* Report prepared for the Nile Egyptian Schools, A Project with the Education Development Fund of Egypt, Cairo, Egypt.

Abd-El-Khalick, F. (2010). *Major themes in the Nile Egyptian Schools (NES) curriculum framework in comparison to international curricular trends and alignment of the specific*

NES learning outcomes for grades 1–10 with these major themes. Report prepared for the Nile Egyptian Schools, A Project with the Education Development Fund of Egypt, Cairo, Egypt.

Abd-El-Khalick, F. (2009). *Using the Extended Standards-based Classroom Observation Protocol for Egypt (SCOPE) in Support of the Professional Academy for Teachers (PAT).* Report prepared for the American Institutes for Research Education Reform Project, Cairo, Egypt.

Abd-El-Khalick, F. (2007). *Egypt Education Reform Project (ERP): Education quality study: SCOPE III data analysis report.* Report prepared for the American Institutes for Research Education Reform Project, Cairo, Egypt.

Abd-El-Khalick, F. (2006). *Egypt Education Reform Project (ERP): Education quality study: SCOPE II data analysis report.* Report prepared for the American Institutes for Research Education Reform Project, Cairo, Egypt.

Abd-El-Khalick, F. (2005). *Education Reform Project: Education quality baseline study.* Report prepared for the American Institutes for Research Education Reform Project, Cairo, Egypt.

Abd-El-Khalick, F. (2005). *The differential effects of the Literacy Enhancement Assistance Program (LEAP) on teachers' instructional practices in Islamic vs. non-Islamic schools in Nigeria.* A report prepared for the Education Development Center LEAP Project, Abuja, Nigeria.

Abd-El-Khalick, F. (2004). *The impact of the Literacy Enhancement Assistance Program (LEAP) in Nigeria on teacher training, effectiveness, and instructional practices, community involvement, and the education management information system.* A set of four reports prepared for the Education Development Center LEAP Project, Abuja, Nigeria.

Abd-El-Khalick, F. (2003). *New Schools Project school clusters: Assessment of the first round of implementing the Education Quality Supervisory Support Teams (EQSS Teams).* Report prepared for the Education Development Center New Schools Project, Cairo, Egypt.

Abd-El-Khalick, F. (2001). *Integrating technology in teaching secondary science and mathematics: Effectiveness, models of integration, and illustrative examples.* Paper prepared for the United Nations Educational, Scientific and Cultural Organization, Cairo Office, Egypt.

Non-Refereed

Haythornthwaite, C., Gao, W., & Abd-El-Khalick, F. (2014). Networks of change: learning from peers about science teaching. In R. H. Sprague (Ed.), *Proceedings of the 47th Hawaii International Conference on System Sciences (HICSS-47)* (pp. 100-109). Los Alamitos, CA: IEEE Computer Society.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2008). The nature of argument among freshmen college students, science teachers, and practicing scientists. In P. Lari (Ed.), *Proceedings of the Second International Conference of the American Institute of Higher Education (Vol. 1)* (pp. 193-198). Atlantic City, NJ: American Institute of Higher Education.

Abd-El-Khalick, F., Boyle, H., & Pier, D. (2006). *Educational quality in Islamic schools in Nigeria.* Washington, DC: American Institutes for Research.

Abd-El-Khalick, F. (2004). Alternative pathways to teaching: Quality teachers versus warm bodies in classrooms. *Proceedings of the Teacher Preparation Principal Investigator Conference*. Washington, DC: The Science, Technology, Engineering, and Mathematics Teacher Education Collaborative (STEMTEC). Available: http://www.stemtec.org/piconf/Proceedings/Papers/Abd.doc

Abd-El-Khalick, F. (2003/2004). An alternative program for recruiting, educating, certifying, and retaining underrepresented populations in teaching science and mathematics (RECRUIT). In S. Walter (Ed.), *Proceedings of the 2003 and 2004 Annual International Conferences of the Association for the Education of Teachers in Science*. Pensacola, FL: Association for the Education of Teachers in Science.

Abd-El-Khalick, F. (2002). The influence of a philosophy of science course on preservice secondary science teachers' views of nature of science. In B. Crawford, J. Rye, W. DiBiase, & P. Rubba (Eds.), *Proceedings of the 2002 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 856-890). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 465 602)

Abd-El-Khalick, F. (2001). Do history of science courses influence college students' views of nature of science? In W. F. McComas (Ed.), *Proceedings of the Sixth International History, Philosophy, and Science Teaching Conference* (pp. 1-43). Denver, CO: International History, Philosophy, and Science Teaching Group.

Abd-El-Khalick, F., Lederman, N. G., Bell, R. L., & Schwartz, R. S. (2001). Views of nature of science questionnaire (VNOS): Toward valid and meaningful assessment of learners' conceptions of nature of science. In P. Rubba, J. Rye, W. DiBiase, & B. Crawford (Eds.), *Proceedings of the 2001 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 212-277). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 453 083)

Abd-El-Khalick, F. (2000). Improving elementary teachers' conceptions of nature of science in the context of a science content course. In P. Rubba, J. Rye, P. Keig, & W. DiBiase (Eds.), *Proceedings of the 2000 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 337-365). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 438 191)

Akerson, V., & Abd-El-Khalick, F. (2000). Improving preservice elementary teachers' conceptions of nature of science using a conceptual change teaching approach. In P. Rubba, J. Rye, P. Keig, & W. DiBiase (Eds.), *Proceedings of the 2000 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 366-398). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 438 191)

Dickinson, V., Abd-El-Khalick, F., & Lederman, N. G. (1999). Changing elementary teachers' views of the nature of science: Effective strategies for science methods courses. In P. Rubba, J. Rye, & P. Keig (Eds.), *Proceedings of the 1999 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 673-703). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 431 626)

Schwartz, R., Abd-El-Khalick, F., & Lederman, N. G. (1999). An exploratory study of the "effectiveness" of elementary science specialists. In P. Rubba, J. Rye, & P. Keig (Eds.), *Proceedings of the 1999 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 888-921). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 431 626)

Abd-El-Khalick, F. (1999). The new Lebanese science and math curricula: Revolution, evolution, and other dangerous ideas. *SMEC Newsletter, 5*(1), 2-4. (*SMEC Newsletter* is a publication of the Science and Mathematics Education Center, Division of Education Programs, American University of Beirut, Beirut, Lebanon.)

Abd-El-Khalick, F., Lederman, N. G., & Bell, R. L. (1998). Developing and acting upon ones' conception of the nature of science: A follow-up study. In P. Rubba & J. Rye (Eds.), *Proceedings of the 1998 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 317-356). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 421 363)

Abd-El-Khalick, F., & BouJaoude, S. (1997). An exploratory study of the disciplinary knowledge of science teachers. In P. Rubba, P. Keig, & J. Rye (Eds.), *Proceedings of the 1997 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 89-133). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 405 220)

Bell, R., Lederman, N. G., & Abd-El-Khalick, F. (1997). Developing and acting upon one's conception of science: The reality of teacher preparation. In P. Rubba, P. Keig, & J. Rye (Eds.), *Proceedings of the 1997 Annual International Conference of the Association for the Education of Teachers in Science* (pp. 429-448). Pensacola, FL: Association for the Education of Teachers in Science. (ERIC Document Reproduction Service No. ED 405 220)

Abd-El-Khalick, F. (1997). Preservice and expert biology teachers' global and specific subject matter structures: Implications for conceptions of pedagogical content knowledge. *Proceedings of the Oregon Academy of Science, 33,* 62.

Abd-El-Khalick, F., & BouJaoude, S. (1996). An exploratory study of the pedagogical content knowledge of science teachers. *Proceedings of the Oregon Academy of Science, 32,* 57-58.

BouJaoude, S., & Abd-El-Khalick, F. (1995). *Lebanese middle school students' definitions of science and perceptions of its purpose and usage.* (ERIC Document Reproduction Service No. ED 387 328)

Research Papers and Presentations

Abd-El-Khalick, F., & Zeidler, D. L. (2016, April, accepted). *The "Guest Doctoral Student Reviewers" initiative: Realizing the professional development potential of the Journal of Research in Science Teaching.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Akyol, G., Oztekin, C., Sungur, S., & Abd-El-Khalick, F. (2016, April). *Development and validation of the intention to integrate nature of science questionnaire.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Brunner, J., Summers, R., Myers, J., & Abd-El-Khalick, F. (2016, April, accepted). *Toward quantifying responses to the views of nature of science questionnaire: Empirically investigating qualitative coding.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Alameh, S., Abd-El-Khalick, F., & Waskan, J. (2016, April, accepted). *Constructing scientific explanations: How philosophically informed models can guide instruction, learning, and assessment in NGSS.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Myers, J., & Abd-El-Khalick, F. (2016, April, accepted). *A wiser goal for K-12 science education.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Summers, R., Maddux, J., Wallon, R., Alameh, S., Akyol, G., Aybuke, P., Brunner, J., Myers, J., Silliman, C., & Abd-El-Khalick, F. (2016, April, accepted). *The history of nature of science representation in state science standards: A Systematic Assessment.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

McDonald, C., Abd-El-Khalick, F., BouJaoude, S., Dagher, Z., Brunner, J., Ramnarain, U., & DiGiuseppe, M. (2016, April, accepted). *Global perspectives on nature of science in school science textbooks: Representations, methodologies, contexts, and implications.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Myers, J., & Abd-El-Khalick, F. (2016, April, accepted). *Should K-12 science education adopt a wiser goal?* Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.

Alberts, B., Labov, J., Abd-El-Khalick, F., & Gaffney, J. (2016, March, accepted). *Expanding opportunities for STEM teacher leadership.* Session presented at the Carnegie Summit on Improvement in Education, San Francisco, CA.

Abd-El-Khalick, F., & Zeidler, D. L. (2015, April). *New horizons for the Journal of Research in Science Teaching.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.

Summers, R., & Abd-El-Khalick, F. (2015, April). *Cross-sectional study of Illinois students' attitudes toward science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.

Matthews, M., Osborne, J., Lederman, N., Abd-El-Khalick, F., Clough, M. P., Kampourakis, K., Smith, M. U., Kelly, G. J., Peters-Burton, E., & Sherman-Heckler, W. (2015, April). *The past, present and possible future of HPS-informed science education research*. Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.

Schroyer, M., Abd-El-Khalick, F., Martin, A., & Haythornthwaite, C. (2015, April). *Tracking emergence and development of entrepreneurial teacher leaders in science teaching and learning networks.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.

Myers, J. Y., & Abd-El-Khalick, F. (2015, April). Faith as integral to science! *What graduate students "saw" while watching a sci-fi film.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.

Martin, A., Mustari, E., Abd-El-Khalick, F., & Israel, M. (2015, April). *Middle school students made substantially greater gains in the nature of engineering (NOE) knowledge domain after teacher shifts in practice and NOE.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Martin, A., Abd-El-Khalick, F., Mustari, E., & Price, R. (2015, April). *Entrepreneurial teachers, effectual reasoning, and risk in science reform.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Schroyer, M., Martin, A., Abd-El-Khalick, F., Haythornthewaite, C. (2015, April). *Tracking entrepreneurial leaders in science learning networks: Longitudinal social network analysis of a partner district.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Abd-El-Khalick, F. (2014, March-April). *Assessment of understandings of nature of science in science education: past, present, and future.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Martin, A., Israel, M., & Abd-El-Khalick, F. (2014, March-April). *Middle school students' conceptions of nature of engineering (NoE).* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Schroyer, M., Abd-El-Khalick, F., Martin, A., & Haythornthwaite, C. (2014, March-April). *A longitudinal, district-wide social network analysis of the impact of science teacher leaders.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Abd-El-Khalick, F., & Dogan, N. (2014, March-April) *A national study of Turkish grade 10 students' and science teachers' conceptions of scientists and the interactions between science, technology, and society.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Summers, R., Abd-El-Khalick, F., Said, Z., & Culbertson, M. (2014, March-April). *Assessment of precollege Qatari students' attitudes toward science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Myers, J., & Abd-El-Khalick, F. (2014, March-April). *Graduate students' ideas about science and the nature of knowing generated by a Sci-Fi film.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Savage, E. L., Burgon, H., Gaffney, J., Price, R., Bagley, E., Martin, A., & Abd-El-Khalick, F. (2014, April). *Innovation at the frontline: A theoretical model of entrepreneurial teacher leadership.* Poster presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.

Haythornthwaite, C., Gao, W., & Abd-El-Khalick, F. (2014, January, accepted). *Networks of change: learning from peers about science teaching.* Paper presented at the annual meeting of Hawaii International Conference on System Sciences (HICSS-47), University of Hawai'i at Manoa, Honolulu, HI.

Martin, A., Abd-El-Khalick, F., & Price, R. (2014, January, accepted). *Entrepreneurial teachers in STEM education: A theoretical model.* Paper presented at the annual international meeting of the Association of Science Teacher Education, San Antonio, TX.

Martin, A., Israel, M., & Abd-El-Khalick, F. (2014, January, accepted). *The nature of engineering (NOE) among middle school students and K-8 teachers: Phase I*. Paper presented at the annual international meeting of the Association of Science Teacher Education, San Antonio, TX.

Wahbeh, N., & Abd-El-Khalick, F. (2013, April). *The effect of an explicit-reflective instructional approach on inservice science teachers' understandings and practices related to nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Abd-El-Khalick, F. (2013, April). *Teaching with and about nature of science: Coupling inquiry and nature of science teaching and learning goals.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Akerson, V. L., Lederman, N. G., Matthews, M., Binns, I., McDonald, C., & Abd-El-Khalick, F. (2013, April). Nature of science: We know the past, but what about the future? Symposium presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Martin, A., Abd-El-Khalick, F., & Price, R. (2013, April). *Year 2 longitudinal study of effectual reasoning scores of high and low innovators*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Bagley, E., Martin, A., Gaffney, J., Price, R., & Abd-El-Khalick, F. (2013, April). *Epistemic network analysis of high and low innovators in high school science classrooms.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

McDonald, C., Abd-El-Khalick, F., Wahbeh, N., Akerson, V., & Schwartz, R. (2013, April). *Explicit-reflective nature of science instruction across contexts and learner outcomes.* Related paper set presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Said, Z., Abd-El-Khalick, F., Summers, R., Culbertson, M., & Friesen, H. (2013, April). *Large-scale validation of an instrument to assess precollege students' attitudes toward science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Schroyer, M., Abd-El-Khalick, F., Martin, A., & Haythornthwaite, C. (2013, April). *Effecting 'reform' through transformations in district-wide science teacher learning networks.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Machluf, Y., Yarden, A., Waight, N., Abd-El-Khalick, F., Nisselle, A., Pineda-Catalan, O., Micklos, D., Schneider-Gricar, V. M., Fernandes, P., & Jungck, J. R. (2013, April). *Authentic bioinformatics tools and database in the biology classroom: Affordances, challenges, and implications for learning.* Related paper set presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Waight, N., & Abd-El-Khalick, F. (2013, April). *Implications of nature of technology for tool enactment in precollege science classrooms.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.

Abd-El-Khalick, F., Belarmino, J., Myers, J., Summers, R., & Brunner, J. (2013, April-May). *Views of nature of science (VNOS) questionnaire: development and validation of a scoring rubric.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Martin, A., Price, R., & Abd-El-Khalick, F. (2013, April-May). *Correlation between high, medium, and low innovators' effectual reasoning scores in science teaching and learning: Year 2 in a longitudinal study.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Said, Z., Abd-El-Khalick, F., Summers, R., & Culbertson, M. (2013, April-May). *Development and validation of an instrument to assess grade 3 through 12 Arab students' attitudes toward science.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Abd-El-Khalick, F., & Schroyer, M. (2013, February). *Monitoring transformations in district-wide teacher learning networks through social network analysis.* Paper presented at the National Science Foundation MSP Learning Network Conference, Washington, DC.

Abd-El-Khalick, F., Said, Z., Summers, R., Culbertson, M., Friesen, H., & Zemmahi, H. (2012, October). *Development and large-scale validation of an instrument to assess precollege Arabic speaking students' attitudes toward science.* Paper presented at the Joint Qatar Foundation Annual Research Forum and Arab Expatriate Scientists Network Symposium, Doha, Qatar.

Abd-El-Khalick, F., Said, Z., & Summers, R. (2012, March). *Developing and validating an instrument to assess Arabic speaking students' attitudes toward science.* Paper presented at the Fourteenth Annual Science and Math Teachers Conference (SMEC XIV), American University of Beirut, Beirut, Lebanon.

Martin, A., Abd-El-Khalick, F., & Price, R. (2012, March). *The relationship between science teachers' effectual reasoning and teaching innovation.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Indianapolis, IN.

Abd-El-Khalick, F., Haythornthwaite, C., Phelps, K., & Martin, A. (2012, March). *Characterizing district-wide teachers' science learning networks: silos and barriers to change and innovation.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Indianapolis, IN.

Greenberg, S., & Abd-El-Khalick, F. (2012, March). *Impact of social media as an instructional component on content knowledge, attitudes, and public engagement related to global climate change.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Indianapolis, IN.

Abd-El-Khalick, F., Belarmino, J., & Summers, R. (2012, March). *Development and validation of a rubric to score the views of nature of science questionnaire.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Indianapolis, IN.

Summers, R., Abd-El-Khalick, F., Said, Z., Friesen, H., & Culbertson, M. (2012, March). *Development and validation of an instrument to assess Arabic speaking students' attitudes toward science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Indianapolis, IN.

Abd-El-Khalick, F. (2011, September). *The development of conceptions of the nature of scientific knowledge and knowing in secondary school.* Paper presented at the biannual conference of the European Science Education Research Association, Lyon, France.

Wahbeh, N., & Abd-El-Khalick, F. (2011, September). *The primacy of content-embedded teacher understandings of nature of science in impacting instruction.* Paper presented at the biannual conference of the European Science Education Research Association, Lyon, France.

Abd-El-Khalick, F. (2011, September). *A longitudinal study of the representations of nature of science in US high school science textbooks.* Paper presented at the biannual conference of the European Science Education Research Association, Lyon, France.

Banerjee, A., Abd-El-Khalick, F., Houseal, A., Lederman, N. G., Lederman, J. S., & Schwartz, R. (2011, April). *Professional development models to support teachers to teach nature of science and inquiry.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Orlando, FL.

Abd-El-Khalick, F., & Martin, A. (2011, April). *Entrepreneurial Leadership in STEM Teaching & learning (EnLiST): The partnership's conceptual framework and approach.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Orlando, FL.

Gao, W., Abd-El-Khalick, F., & Haythornthwaite, C. (2011, April). *Learning, leadership, and innovation in science teaching as manifested in teachers' social networks.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Orlando, FL.

Koehler, J., Bresler, L., & Abd-El-Khalick, F. (2011, April). *From procedural change to substantive innovation: Science teachers and the entrepreneurial mindset.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Orlando, FL.

Houseal, A., Destefano, L., & Abd-El-Khalick, F. (2011, April). *STaRRS in Yellowstone: Student outcomes from a student-teacher-scientist partnership.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Gao, W., Haythornthwaite, C., & Abd-El-Khalick, F. (2011, April). *Social networks, learning, and innovation in science teaching.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F., & Martin, A. (2011, April). *Entrepreneurial Leadership in STEM Teaching and learning (EnLiST).* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Halbig, P., & Abd-El-Khalick, F. (2011, April). *Representations of evolutionary theory in high school biology textbooks through the 20th century.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F., Bresler, L., Erickson, F., Gaffney, J. S., Gao, W., Haythornthwaite, C., Koehler, J., Lederman, N. G., Martin, A., & Price, R. L. (2011, April). *Toward a framework for conceptualizing and effecting teacher entrepreneurial leadership for transforming STEM teaching and learning.* Symposium conducted at the annual meeting of the American Educational Research Association, New Orleans, LA.

Wahbeh, N., & Abd-El-Khalick, F. (2011, April). *The translation of teachers' understandings of nature of science into their instructional practice.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F., Gaffney, J. S., Price, R. L., Koehler, J., & Martin, A. M. (2011, January). *Student success as a function of entrepreneurial teacher leadership in STEM.* Paper presented at the National Science Foundation MSP Learning Network Conference, Washington, DC.

Halbig, P., & Abd-El-Khalick, F. (2010, March). *Degrees of concordance between scientific representations of evolutionary theory and contemporaneous high school biology textbooks through the 20th century.* Paper presented at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Martin, A., & Abd-El-Khalick, F. (2010, March). *Entrepreneurial Leadership in STEM Teaching and learning (EnLiST): A longitudinal case study.* Poster presented at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Abd-El-Khalick, F., Mittelsten Scheid, N., Schwartz, R. S., Kremer, K., Mayer, J., Cetin, P., Erduran, S., & Kaya, E. (2010, March). *Nature of science between subject-specific and subject-comprehensive science education approaches.* Symposium conducted at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Abd-El-Khalick, F. (2010, March). *Nature of science in science education: Toward a coherent framework for synergistic research and development.* Paper presented at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Zeineddin, A., & Abd-El-Khalick, F. (2010, March). *The impact of epistemological beliefs on scientific reasoning among college science students: Comparing two epistemology assessments.* Paper presented at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Abd-El-Khalick, F., Rudolph, J. L., & Ruggeri, N. (2010, March). *The NARST digital archives project: A repository and resource for the history of science education research.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

Wahbeh, N., & Abd-El-Khalick, F. (2010, March). *The effect of a content-embedded explicit-reflective instructional approach on inservice teachers' views and practices related to nature of science.* Paper presented at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Waight, N., & Abd-El-Khalick, F. (2010, March). *The life cycles of technological tools: Implications for the science classroom.* Paper presented at the annual meeting of the National association for Research in Science Teaching, Philadelphia, PA.

Abd-El-Khalick, F., Rachel, C., & Boyle, H. (2010, March). *From planned systemic reform to actualized system-wide transformation: Development of a performance-based teacher professional promotion system in Egypt.* Paper presented at the 54th annual meeting of the Comparative and International Education Society, Chicago, IL.

Abd-El-Khalick, F., Martin, A., Price, R., Shapley, P., & Selen, M. (2010, January). *Entrepreneurial Leadership in STEM Teaching & learning (EnLiST).* Poster presented at the 2010 Math-Science-Partnerships Learning Network Conference, Washington, DC.

Koehler, J. L., Price, R., Gaffney, J., Bresler, L., Abd-El-Khalick, F., & Martin, A. (2010, January). *EnLiST: Developing entrepreneurial teacher leaders.* Paper presented at the 2010 Math-Science-Partnerships Learning Network Conference, Washington, DC.

Abd-El-Khalick, F. (2009, September). *Scientists' views of nature of science: Their trouble or ours?* Paper presented at the 2009 meeting of the European Science Education Research Association, Istanbul, Turkey.

Abd-El-Khalick, F. (2009, September). *Representations of nature of science in high school biology and physics textbooks in the United States: A longitudinal study.* Paper presented at the 2009 meeting of the European Science Education Research Association, Istanbul, Turkey.

Abd-El-Khalick, F. (2009, June). *A longitudinal study of the representation of nature of science in high school biology and physics textbooks.* Paper presented at the biennial meeting of the International History and Philosophy of Science Teaching Group, Notre Dame, IN.

Waight, N., & Abd-El-Khalick, F. (2009, April). *Factors that compromise the potential of technological tools in fostering authentic inquiry in science classrooms.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

Abd-El-Khalick, F., & Jadallah, M. (2009, April). *The trouble with scientists' views of nature of science!* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

Abd-El-Khalick, F., Joslin, P., Holliday, W., Markle, G., Staver, J., Tillotson, J., & Kyle, B. (2009, April). *Increasing our influence with today's researchers, practitioners, and policymakers: Perspectives from past and present NARST executive secretaries and directors.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

Zeineddin, A., & Abd-El-Khalick, F. (2009, April). *Scientific reasoning and epistemological commitments: Coordination of theory and evidence among college science students.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

Abd-El-Khalick, F., Wahbeh, N., Waight, N., & Zeineddin, A. (2009, April). *A longitudinal analysis of the representations of nature of science in high school biology and physics textbooks.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

Dagher, Z., BouJaoude, S., Abd-El-Khalick, F., Dillon, J., Mansour, N., & Gholam, G. (2009, April). *Challenges and opportunities for science education in Arab states.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Garden Grove, CA.

Abd-El-Khalick, F. (2009, April). *Representations of nature of science in high school biology and physics textbooks: A "longitudinal" study.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Waight, N., & Abd-El-Khalick, F. (2009, April). *From scientific practice to science classrooms: "Realizations" of technological tools in high school science classrooms.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Abd-El-Khalick, F., Jadallah, M., & Prillaman, J. (2009, April). *Should we be troubled about scientists' views of nature of science?* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Abd-El-Khalick, F., Boyle, H., & Rachel, C. (2009, March). *Impact of a systemic reform initiative on Egyptian teachers' instructional practice: A longitudinal study.* Paper presented at the 53rd annual meeting of the Comparative and International Education Society, Charleston, SC.

Abd-El-Khalick, F., & Boyle, H. (2009, March). *Egyptian teacher opportunities for professional growth grants (TOP G-rants): A bottom-up approach to professional development.* Paper presented at the 53rd annual meeting of the Comparative and Education Society, Charleston, SC.

Zafeirakou, A., Abd-El-Khalick, F., Boyle, H., Massialas, B., & Jarrar, S. (2009, March). *Pedagogical reforms in MENA countries: What is changing in classrooms? Historical perspective, influences, progress and challenges.* Symposium conducted at the 53rd annual meeting of the Comparative and Education Society, Charleston, SC.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2008, September). *Perceptions and assessment of arguments among freshmen college students, science teachers, and practicing scientists.* Paper presented at the meeting of the American Institute for Higher Education, Atlantic City, NJ.

Abd-El-Khalick, F., BouJaoude, S., Duit, R., Tiberghien, A., Jiménez-Aleixandre, M. P., & Dillon, J. (2008, April). *Science education research traditions in Europe: Shedding light on didactics.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Abd-El-Khalick, F., Abdulkadir, D., BouJaoude, S., Czerniak, C. M., Lawrenz, F., & Moin, L. (2008, April). *Recruitment of science and mathematics teachers: National and international perspectives on issues and policies.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Abd-El-Khalick, F. (2008, April). *Factors underling decisions to pursue alternative routes to secondary science certification.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2008, March). *Perceptions and assessment of arguments among freshmen college students, science teachers, and practicing scientists.* Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Harrison, A., Venville, G., Abd-El-Khalick, F., & Blakely, A. (2007, April). *Graduate student and junior faculty early career discussion.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2007, April). *Perceptions of argumentative discourse among freshmen college students, science teachers, and practicing scientists.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

BouJaoude, S., Abd-El-Khalick, F., Dillon, J., Fraser-Abder, P., Hofstein, A., Lederman, N., & Mamlok-Naaman, R. (2007, April). *Professional development of science teachers worldwide.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Rose, S. J., & Abd-El-Khalick, F. (2007, April). *The effect of discussion-intensive and on-line problem solving on freshmen students' understanding of force.* Paper presented at the

annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Wahbeh, N., & Abd-El-Khalick, F. (2007, April). *Modes of discourse in science classrooms: The failure of static models in capturing complex classroom dynamics.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Duschl, R., Brickhouse, N., Abd-El-Khalick, F., Bell, P., & Edelson, D. (2007, April). *Inquiry and the learning of science: Theories and practices.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Abd-El-Khalick, F., Champagne, A., Duit, R., Kahle, J., Lawson, A., & Lederman, N. (2007, April). *Research in science education: How well does our research build upon, and is guided by, existing research?* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Salloum, S., & Abd-El-Khalick, F. (2007, April). *Practical knowledge in teaching: Case studies from physical science classrooms.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Abd-El-Khalick, F., Waters, M., & Le, A. (2007, April). *Images of nature of science in high school chemistry textbooks: A "longitudinal" study.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Abd-El-Khalick, F., Rachel, C., El-Dib, M., Assaf, S., & Boyle, H. (2007, February). *Professional development for educational quality in Egypt: The ERP experience.* Symposium conducted at the 51st annual meeting of the Comparative and International Education Society, Baltimore, MD.

Abell, S., Abd-El-Khalick, F., Aikenhead, G., Fensham, P., Butler Kahle, J., Lazarowitz, R., & Yager, R. (2006, April). *Issues and trends in science education: An historical perspective.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Abd-El-Khalick, F., & Akerson, V. L. (2006, April). *The influence of training in metacognitive strategies on preservice elementary teachers' conceptions of nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Waters, M., Le, A., & Abd-El-Khalick, F. (2006, April). *Representation of nature of science in high school chemistry textbooks over the past four decades.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Abd-El-Khalick, F., Akerson, V. L., Rudge, D., Howe, E., Khishfe, R., Lederman, N., Lederman, J., & Schwartz, R. (2006, April). *Setting an empirically supported and synergistic agenda for research on nature of science*. A symposium conducted at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Abd-El-Khalick, F. (2006, April). *Developmental patterns in secondary school students' epistemological views.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2006, April). *Argumentative discourse in a high-school chemistry classroom: An exploratory study.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Chinn, C., Abd-El-Khalick, F., Hofer, B., Leach, J., & Samarapungavan, A. (2006, April). *Research on epistemology: Bridging disciplinary boundaries and theoretical perspectives.* Symposium conducted at the annual meeting of the American Educational Research Association, San Francisco, CA.

Akerson, V. L., & Abd-El-Khalick, F. (2006, April). *Enhancing preservice elementary teachers' conceptions of nature of science through training in metacognitive strategies.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2006, January). *An exploratory study of argumentative discourse in a high school chemistry classroom.* Paper presented at the 4th Annual Hawaii International Conference on Education, Honolulu, HI.

BouJaoude, S., & Abd-El-Khalick, F. (2005, August). *A decade of science education research in Lebanon (1992-2002): Trends and issues.* Paper presented at the meeting of the European Science Education Research Association, Barcelona, Spain.

Abd-El-Khalick, F. (2005, July). *Developing deeper understandings of nature of science: The impact of a philosophy of science course on preservice science teachers' views and instructional planning.* Paper presented at the 8th International History, Philosophy, and Science Teaching Conference, Leeds, England.

Abd-El-Khalick, F., Abi-El-Mona, I., Gonzalez, E., Leuszler, H., Salloum, S., Waight, N., Weon, J., Wright, S., & Zeineddin, A. (2005, April). *A roadmap for trends and issues in research in science education (1991–2003): An empirical study*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Feldman, A., Abd-El-Khalick, F., Berger, J., Kemp, A., & Zhao, Y. (2005, April). *Alternative certification for science teachers: Policy, practice, and research.* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Salloum, S., & Abd-El-Khalick, F. (2005, April). *Blending the intellectual and the moral in pursuit of deeper understandings: The teaching and learning of physical sciences in Lebanese middle school classrooms.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Zeineddin, A., & Abd-El-Khalick, F. (2005, April). *On coordinating theory with evidence: The role of epistemic commitments in scientific reasoning among college students.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Abd-El-Khalick, F., & BouJaoude, S. (2005, April). *A decade of science education research in Lebanon (1992–2002): Issues and trends.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Feldman, A., Dani, D. E., Abd-El-Khalick, F., Zhao, Y., Mitchener, C. P., Herbert, B., & Prival, J. (2005, April). *Alternative certification/licensure for science teachers.* Symposium conducted at the annual meeting of the American Educational Research Association, Montreal, Canada.

Ho, H. H., He, M. F., Stacki, S. L., Swadener, E. B., Sunal, D. W., Sunal, C. S., Mutua, K., Stevens, D. D., Guven, I., Eilam, B., Dancy-Benjamin, G. V., Green, S. A., Kanga, A. W., Koutsoulis, M., Ganser, T., Abd-El-Khalick, F. S., BouJaoude, S. B., & Shen, Y. J. (2005, April). *International Studies Business Meeting invited panel: Research on education in Africa, the Caribbean, the Middle East, and the United States.* Interactive symposium conducted at the annual meeting of the American Educational Research Association, Montreal, Canada.

Sunal, C. S., Mutua, K., Ganser, T., Abd-El-Khalick, F. S., BouJaoude, S. B., Guven, I. B., Koutsoulis, M., Stevens, D. D., & Swadener, E. B. (2005, April). *Through the eyes of the insider: Topics in research in Africa, the Caribbean and the Middle East.* Interactive symposium conducted at the annual meeting of the American Educational Research Association, Montreal, Canada.

Abd-El-Khalick, F. (2005, February). *Modeling science classrooms after scientific laboratories: Sketching some affordances and constraints drawn from examining underlying assumptions.* Paper presented at the Inquiry Conference on Developing a Consensus Research Agenda, Rutgers University, New Brunswick, NJ.

Abd-El-Khalick, F. (2004, April). *Gendered knowledge: Understanding the nature of science as a pathway to reflective practice*. Panel conducted at the University of Illinois Conference on Gender in the Pre-College Science, Mathematics, and Technology (SMT) Classroom, Champaign, IL.

Sandoval, W., Abd-El-Khalick, F., Duschl, R., Hammer, D., Kelly, G., Leach, J., Millwood, K., Ryder, J. Scherr, R. (2004, April). *Advancing epistemological studies in science education.* Symposium conducted at the annual meeting of the American Educational Research Association, San Diego, CA.

Abd-El-Khalick, F. (2004, April). *Assessing and influencing epistemological views: The moderate fallacies of inference to beliefs from action and influence of action on beliefs.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Abd-El-Khalick, F. (2004, April). *The relationship between students' views of nature of science and their conceptual understanding of stoichiometry: An empirical assessment*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Abd-El-Khalick, F., & Akerson, V. L. (2004, April). *Enhancing preservice teachers' conceptions of nature of science: The impact of training in metacognitive strategies.*

Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Waight, N., & Abd-El-Khalick, F. (2004, April). *The impact of technology on the enactment of inquiry in a sixth grade science classroom.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Akerson, V. L., & Abd-El-Khalick, F. (2004, April). *The influence of instruction in metacognitive strategies on preservice early childhood teachers' conceptions of nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada.

Abd-El-Khalick, F., & BouJaoude, S. (2004, April). *Do student views of nature of science influence their conceptual understandings of science content?* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2004, April). *Argumentative discourse in science: Context and structure.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada.

Waight, N., & Abd-El-Khalick, F. (2004, April). *Technology in a sixth grade science classroom: Promoting or impeding inquiry?* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada.

Abd-El-Khalick, F. (2004, March). *Alternative pathways to teaching: Quality teachers versus warm bodies in classrooms.* Paper presented at the Teacher Preparation Principal Investigator Meeting, Washington, DC.

BouJaoude, S., Sawwan, S., & Abd-El-Khalick, F. (2003, August). *The effect of using drama in science teaching on students' conceptions of nature of science.* Paper presented at the meeting of the European Science Education Research Association, Noordwijkerhout, The Netherlands.

Abd-El-Khalick, F. (2003, April). *The development of students' scientific epistemologies during the middle and high school years.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Hyunju, L., Choi, K., & Abd-El-Khalick, F. (2003, March). *Korean science teachers' perceptions of the introduction of ethical issues into the science curriculum.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

Abd-El-Khalick, F. (2003, March). *Socioscientific issues in pre-college science classrooms: The primacy of learners' epistemological orientations and views of nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

Abd-El-Khalick, F. (2003, January). *RECRUIT: Recruiting, educating, certifying, and retaining underrepresented populations in teaching science and mathematics.* Paper presented at

the annual meeting of the Association for the Education of Teachers in Science, St. Louis, MO.

Abd-El-Khalick, F., & BouJaoude, S. (2002, September). *Lebanese middle school students' views of nature of science: Definitions of science and perceptions of its purpose and usage.* Paper presented at the Seminar on Learning in Science in the Mediterranean Region, Nicosia, Cyprus.

Zeidler, D., Loving, C., McGinnis, R., Abd-El-Khalick, F., Bell, R. L., & Sadler, T. (2002). *Moral and ethical issues in science education: Is there a voice for research, policy, and practice?* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Abi-El-Mona, I., & Abd-El-Khalick, F. (2002, April). *The Influence of mindmapping on the science achievement of grade 8 students.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Waight, N., Abd-El-Khalick, F., & Brown, D. (2002, April). *Technology in preservice science methods courses: Promises and hurdles*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Abd-El-Khalick, F. (2002, April). *The development of conceptions of the nature of scientific knowledge and knowing in the middle and high school years: A cross-sectional study.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Schwartz, R., Lederman, N. G., Dekkers, P., Shiang-Yao, L., Khishfe, R., Bell, R. L., & Abd-El-Khalick, F. (2002, April). *International perspectives on research in nature of science: Finding common ground?* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

BouJaoude, S., Salloum, S., & Abd-El-Khalick, F. (2002, April). *Relationships between selective cognitive variables and students' ability to solve chemistry problems.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Akerson, V. L., Abd-El-Khalick, F., & Banning, T. (2002, April). *A fourth grade teacher's endeavors to teach nature of science: A year-long study.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Abd-El-Khalick, F. (2002, April). *Examining college students' views of nature of science.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F. (2002, April). *Developing deeper understandings of nature of science: The impact of a philosophy of science course on preservice secondary science teachers' views.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Akerson, V. L., Abd-El-Khalick, F., & Banning, T. (2002, April). *Teaching elements of nature of science: A yearlong case study of a fourth grade teacher.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F., & Khishfe, R. (2002, March). *How to teach nature of science? An explicit inquiry-oriented approach.* Paper presented at the annual meeting of the National Science Teachers Association, San Diego, CA.

Abd-El-Khalick, F. (2002, January). *The influence of a philosophy of science course on preservice secondary science teachers' views of nature of science*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Charlotte, NC.

Khishfe, R., & Abd-El-Khalick, F. (2002, January). *Teaching nature of science: A success story.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Charlotte, NC.

Khishfe, R., & Abd-El-Khalick, F. (2001, November). *How to teach nature of science to elementary students? An explicit inquiry-oriented approach.* Paper presented at the 6th International History, Philosophy, and Science Teaching Conference, Denver, CO.

Abd-El-Khalick, F. (2001, November). *Do history of science courses influence college students' views of nature of science?* Paper presented at the 6th International History, Philosophy, and Science Teaching Conference, Denver, CO.

Lederman, N. G., Bell, R. L., Schwartz, R., Abd-El-Khalick, F., & Akerson, V. (2001, November). *Assessing understandings of the nature of science: Development and use of the views of nature of science questionnaire.* Paper presented at the 6th International History, Philosophy, and Science Teaching Conference, Denver, CO.

Abd-El-Khalick, F., Haidar-Makki, M., & BouJaoude, S. (2001, April). *Lebanese secondary school students' environmental knowledge and attitudes.* Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

Abd-El-Khalick, F., & Zeineddin, A. (2001, April). *Doing the right thing versus doing the right thing right: Concept mapping in a Freshmen physics laboratory.* Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

Abd-El-Khalick, F., BouJaoude, S., Duschl, R., Lederman, N. G., Mamlok, R., Niaz, M., Treagust, D., & Tuan, H. (2001, March). *Inquiry in science education: International perspectives*. Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Lederman, N. G., Abd-El-Khalick, F., Bell, R. L., & Schwartz, R., Akerson, V. L. (2001, March). *Assessing the un-assessable: Views of Nature of Science Questionnaire (VNOS).* Symposium conducted at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Abd-El-Khalick, F. (2001, March). *Over and over and over again: College students' views of nature of science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Abd-El-Khalick, F., Lederman, N. G., Bell, R. L., & Schwartz, R. (2001, January). *Views of nature of science questionnaire (VNOS): Toward valid and meaningful assessment of learners' conceptions of nature of science.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA.

Abd-El-Khalick, F. (2000, November). *Action research in school-based reform: A viable paradigm for informed site-based decision-making.* Paper presented at the Conference on School-based Educational Reform in Arab Countries, American University of Beirut, Beirut, Lebanon.

Karam, E., & Abd-El-Khalick, F. (2000, May). *Students' private science: Examining their misconceptions . . . and ours!* Paper and workshop presented at the Fourth Annual Science and Math Teachers Conference (SMEC IV), American University of Beirut, Beirut, Lebanon.

Khishfe, R., & Abd-El-Khalick, F. (2000, May). *Teaching about nature of science: An explicit inquiry-oriented approach.* Paper presented at the Fourth Annual Science and Math Teachers Conference (SMEC IV), American University of Beirut, Beirut, Lebanon.

Abd-El-Khalick, F. (2000, April). *Explicit reflective content-embedded nature of science instruction: Abandoning scientism, but . . .* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Akerson, V., & Abd-El-Khalick, F. (2000, April). *The influence of conceptual change teaching in improving preservice teachers' conceptions of nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Khishfe, R., & Abd-El-Khalick, F. (2000, April). *The influence of explicit reflective versus implicit inquiry-oriented instruction on sixth graders' views of nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

Akerson, V., & Abd-El-Khalick, F. (2000, April). *Improving preservice elementary teachers' conceptions of nature of science with a conceptual change teaching strategy.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Schwartz, R., Lederman, N. G., Abd-El-Khalick, F., & Bell, R. L. (2000, April). *Teaching the nature of science: Another case of knowledge is essential, but not sufficient.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F. (2000, April). *Using an explicit reflective content-embedded approach to improve elementary teachers' conceptions of nature of science.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F. (2000, April). *Inquiry instruction and learning about nature of science: The need for an explicit reflective component.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Abd-El-Khalick, F. (2000, January). *Improving elementary teachers' conceptions of nature of science in the context of a science content course.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Akron, OH.

Akerson, V., & Abd-El-Khalick, F. (2000, January). *Improving preservice elementary teachers' conceptions of nature of science using a conceptual change teaching approach.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Akron, OH.

Abd-El-Khalick, F., & Lederman, N. (1999, September). *Success of the attempts to improve science teachers' conceptions of nature of science: A review of the literature.* Paper presented at the 5th International History, Philosophy, and Science Teaching Conference, Lake Como, Italy.

Lederman, N., Bell, R., & Abd-El-Khalick, F. (1999, September). *Developing and acting upon one's conceptions of the nature of science.* Paper presented at the 5th International History, Philosophy, and Science Teaching Conference, Lake Como, Italy.

Abd-El-Khalick, F. (1999, May). *Nature of science: What is it? Why is it important? And what attention is it accorded in the new Lebanese science curriculum?* Paper presented at the meeting of the Lebanese Association for Educational Sciences, Beirut, Lebanon.

Abd-El-Khalick, F., & BouJaoude, S. (1999, May). *Don't just throw those kids in groups: Cooperative learning activities in science.* Paper presented at the Third Annual Science and Math Teachers Conference (SMEC III), American University of Beirut, Beirut, Lebanon.

Dickinson, V., Abd-El-Khalick, F., & Lederman, N. G. (1999, March). *The influence of a reflective activity-based approach on elementary teachers' conceptions of the nature of science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

Abd-El-Khalick, F., & Lederman, N. G. (1999, March). *The influence of history of science courses on students' nature of science views.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

Lederman, N. G., Schwartz, R., Abd-El-Khalick, F., & Bell, R. L. (1999, March). *Preservice teachers and their nature of science instruction: Factors that facilitate success.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

Dickinson, V., Abd-El-Khalick, F., & Lederman, N. G. (1999, January). *Changing elementary teachers' views of the nature of science: Effective strategies for science methods courses.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Austin, TX.

Schwartz, R., Abd-El-Khalick, F., & Lederman, N. G. (1999, January). *An exploratory study of the "effectiveness" of elementary science specialists.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Austin, TX.

Abd-El-Khalick, F., & Lederman, N. G. (1998, April). *Improving science teachers' conceptions of the nature of science: A critical review of the literature.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Diego, CA.

Bell, R. L., Lederman, N. G., & Abd-El-Khalick, F. (1998, April). *Preservice teachers' beliefs and practices regarding the teaching of the nature of science.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Diego, CA.

Abd-El-Khalick, F., Lederman, N. G., & Bell, R. L. (1998, January). *Developing and acting upon ones' conception of the nature of science: A follow-up study.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Minneapolis, MN.

Abd-El-Khalick, F., & Lederman, N. G. (1998, January). *Avoiding de-natured science: Activities that promote understandings of the nature of science.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Minneapolis, MN.

Lederman, N. G., Abd-El-Khalick, F., & Bell, R. (1997, March). *Knowing and doing: The flight of the nature of science from the classrooms.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Abd-El-Khalick, F., Lederman, N. G., & Bell, R. (1997, March). *The nature of science and instructional practice: Making the unnatural natural.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Oak Brook, IL.

Abd-El-Khalick, F. (1997, January). *An exploratory study of the disciplinary knowledge of science teachers.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Cincinnati, OH.

Bell, R., Lederman, N. G., & Abd-El-Khalick, F. (1997, January). *Developing and acting upon one's conception of science: The reality of teacher preparation.* Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Cincinnati, OH.

Lederman, N. G., Abd-El-Khalick, F., & Bell, R. (1996, October). *Integrating national standards into your curriculum.* Paper and workshop presented at the annual meeting of the Oregon Science Teachers Association, Hillsboro, OR.

BouJaoude, S., & Abd-El-Khalick, F. (1995, April). *Lebanese middle school students' definitions of science and perceptions of its purpose and usage.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

Invited Sessions: Keynote addresses / Plenary sessions / Seminars / Lectures

International

Abd-El-Khalick, F. (2015, October). *Integration, intersection, disjunction: Toward an empirical research programme on the question(s) of Islam and science.* Invited talk presented at the Workshop on Science Teaching in Contemporary Islamic Societies. Center for Islam and Science, McGill University, Montreal, Canada.

Abd-El-Khalick, F. (2014, September). *Testing to teach and teaching to the test: Student learning and 21st century priorities for school science education.* Invited public lecture delivered at the University of Johannesburg, South Africa.

Abd-El-Khalick, F. (2014, September). *The 'next generation' science standards: Implications of authentic scientific practices for precollege science teaching and learning.* Invited seminar conducted at the Department of Science and Technology Education, the University of Johannesburg, South Africa.

Abd-El-Khalick, F. (2104, May). *Assessing understandings of nature of science in science education: Past, present, and future.* Invited colloquium, German Chemical Society, University of Cologne, Cologne, Germany.

Abd-El-Khalick, F. (2013, June). *On context and teaching about NOS: What history and inquiry tell us about using history of science and inquiry instruction to teach about NOS.* Invited keynote presented at the International Workshop on Sociocultural Approaches to Socioscientific Issues and Nature of Science, Ewha Women University, Seoul, South Korea.

Abd-El-Khalick, F., & Myers, J. (2013, February). *The evolving landscape related to assessment of nature of science understandings: The development and validation of a scoring rubric for the Views of Nature of Science (VNOS) Questionnaire.* Invited seminar conducted at the Department of Mathematics and Science Education, Stockholm University, Sweden.

Abd-El-Khalick, F. (2012, November). *Nature of science in science education: The why, the what, and the how.* Invited presentation to the Unit of Teacher Education, Department of Chemistry, Faculty of Science, University of Helsinki, Finland.

Abd-El-Khalick, F. (2012, September). *What History and inquiry tell us about using history of science and inquiry-oriented instruction to teach about nature of science.* Invited keynote address presented at the Conference on Learning to Teach Nature of Science: A Question of Context? University of Cologne, Cologne, Germany.

Abd-El-Khalick, F. (2012, June). *Framing research and development on nature of science in science education: Enduring conflations, critical issues, and fruitful pathways.* Invited keynote address presented at the Nature of Science Conference, Pamukkale University, Denizli, Turkey.

Abd-El-Khalick, F. (2012, May). *Nature of science in precollege science classrooms: Preparing the 'next generation' science students.* Invited keynote address presented at the Nature of Science Conference, Pamukkale University, Denizli, Turkey.

Abd-El-Khalick, F. (2012, May). *Nature of science and citizenship: Why do understandings of nature of science matter in everyday life?* Invited keynote address to the Kids Participation in Educational Research (KiP^2) Project, University of Vienna, Vienna, Austria.

Abd-El-Khalick, F. (2012, May). *Teaching with and about nature of science: Inquiry, nature of science, and science teachers' pedagogical content knowledge*. Invited seminar presented at the Austrian Educational Competence Center—Biology, University of Vienna, Vienna, Austria.

Abd-El-Khalick, F. (2012, March). *Preparing the 'next generation' science students: Implications of authentic scientific practices for precollege science teaching and learning.* Invited plenary session presented at the Fourteenth Annual Science and Math Teachers Conference (SMEC XIV), American University of Beirut, Beirut, Lebanon.

Abd-El-Khalick, F. (2011, June). *Teaching with and about nature of science: Teacher knowledge domains and explicit-reflective nature of science instruction*. Invited keynote address to the International Workshop on Science Teaching and History and Philosophy of Science: "Science Studies and Science Education: How Science Works and How to Teach about It," organized by the European Society for the History of Science, Aarhus University, Århus, Denmark.

Abd-El-Khalick, F. (2010, October). *Nature of science in science education: Enduring conflations and critical issues.* Invited seminar conducted at the Department of Mathematics and Science Education, Stockholm University, Sweden.

Abd-El-Khalick, F. (2010, August). *Assessment and evaluation in teacher professional development*. Invited plenary session presented at the policy institute on "Embedding Excellence: Transforming Professional Development for Educators" organized by the Technology Tools for Teaching & Training Project, Bangalore, India.

Abd-El-Khalick, F. (2010, August). *Key elements of a high quality professional development system*. Invited session presented at the policy institute on "Embedding Excellence: Transforming Professional Development for Educators" organized by the Technology Tools for Teaching & Training Project, Bangalore, India.

Abd-El-Khalick, F. (2009, November). *Nature of science in science teaching and learning: The what, the why, and the how*. Invited keynote address delivered at the international conference on "Science Education: Shared Issues, Common Future" organized by the National Institute of Education, Singapore.

Abd-El-Khalick, F. (2007, March). *Teaching and learning science with information and communication technologies.* Invited plenary session presented at the "Looking Forward Summit: Harnessing Information and Communication Technologies to Build the Future of Yemeni Education," Tai'z, Yemen.

Abd-El-Khalick, F. (2005, June). *Wonderland.* Invited keynote speech delivered at the Department of Education Commencement Ceremony, American University of Beirut, Beirut, Lebanon.

Abd-El-Khalick, F. (2001, May). *Teaching about nature of science: Truth, objectivity, the scientific method, and other lies my teacher told me.* Invited plenary session presented at the Fifth Annual Science and Math Teachers Conference (SMEC V), American University of Beirut, Beirut, Lebanon.

National

Abd-El-Khalick, F. (2016, February, forthcoming). *How I learned to stop worrying about producing little scientists, and/or little historians and philosophers of science and love persuasion: Toward more modest and realizable goals for scientific literacy in K-12 science education.* Invited talk presented at the Colloquium on How Can History and

Philosophy of Science Contribute to Citizen Science Literacy and Policy. Center for Philosophy and History of Science, Boston University, MA.

Abd-El-Khalick, F. (2012, December). *What history teaches us about using history of science to teach about nature of science.* Invited talk presented at the Conference on Teaching Science through History and Philosophy of Science: How can the HPS Contribute to Contemporary U.S. Science Teaching. Center for Philosophy and History of Science, Boston University, MA.

Abd-El-Khalick, F. (2009, October). *A 'longitudinal' study of the representations of nature of science in high school science textbooks.* Invited seminar presented at the Center for Excellence in Science, Mathematics, and Engineering Education, Iowa State University, Ames, IA.

Abd-El-Khalick, F. (2009, October). *Science literacy: What are we trying to teaching with online courses?* Invited seminar presented at the Conference on Designing Effective Online Science Courses, Parkland College, Champaign, IL.

Abd-El-Khalick, F. (2007, April). *Setting an empirically supported and synergistic agenda for research on nature of science.* Invited seminar presented at the Center for Science and Mathematics Education, College of Education, University of Texas at Austin, TX.

Abd-El-Khalick, F. (2003, November). *The development of students' science epistemologies in the middle and high school years: A cross-sectional study.* Invited seminar presented to the Department of Curriculum & Instruction, Purdue University, West Lafayette, IN.

Abd-El-Khalick, F. (2003, September). *The development and schooling of views of nature of science in secondary school: An exploratory study.* Invited seminar presented at the Institute for Science Education, Western Michigan University, Kalamazoo, MI.

Abd-El-Khalick, F. (2002, January). *The development of students' science epistemologies in the middle and high school years.* Invited seminar presented at the Department of Curriculum & Instruction, School of Education, Indiana University Bloomington, Bloomington, IN.

McComas, W., Abd-El-Khalick, F., Chiapetta, G., Lawson, A. E., Good, R. (2001, November). *What research says about nature of science and science teaching: An instant update.* Invited plenary session conducted at the 6th International History, Philosophy, and Science Teaching Conference, Denver, CO.

Abd-El-Khalick, F., Brown, D., & Gutiérrez, R. (2001, September). *Involving faculty and their research in the preparation of teacher educators.* Talk given at the "Invitational Forum on Exemplary Practices and Challenges in Teacher Preparation" organized by the American Association of Universities and the American Academy of Arts and Sciences, Cambridge, MA.

University

Abd-El-Khalick, F. (2015, September). *Education in the Middle East.* Invited lecture presented at the "New Middle East" course (SAME/ PS/ SOC 512). Center for South Asian and Middle Eastern Studies, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F., Anderson, J., & Rounds, J. (2014, May). *Panel on the promotion and tenure process*. Bureau of Educational Research, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F., & Summers, R. (2013, November). *The assessment of precollege Qatari students' attitudes toward science.* Invited brown bag lecture, Center for South Asian and Middle Eastern Studies, University of Illinois at Urbana-Champaign, Champaign, IL.

Wiegand, J. (Superintendent), Fuller, A., & Abd-El-Khalick, F. (2013, November). *Community conversation with the Superintendent of the Champaign Unit 4 School District.* EnterpriseWorks Incubator, Research Park, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick. F. (2012, October). *Entrepreneurial leadership in STEM education: It takes the whole pipeline to nurture STEM people!* Invited keynote remarks presented at the North Central Region Conference of the American Association of Agricultural Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F., Gaffney, J. S., & Price, R. L. (2012, June). *Teachers as entrepreneurial leaders for students' engagement and learning in STEM.* Interactive session presented at the University of Illinois Chancellor's Academy 2012, Champaign, IL.

Abd-El-Khalick, F. (2012, March). *Nature of science in science teaching and learning.* Invited seminar presented as part of the Illinois Researchers in partnership with K-12 Science Educators (iRiSE) Project, Department of Physics, University of Illinois at Urbana-Champaign, Champaign, IL.

Gaffney, J. S., Abd-El-Khalick, F., & Price, R. (2012, February). *An evolving model of entrepreneurial leadership in science teaching and learning.* Seminar presented as part of the Cognitive Science of Teaching and Learning (CSTL) Brown Bag Series, Department of Educational Psychology, College of Education, University f Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F., & McFarquhar, G. M. (2011, March). *Nuts and bolts of a successful mid-career.* Panel conducted as part of the symposium on "Mid-Career Faculty Development" organized by the Provost Office, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2011, February). *Nature of science in science teaching and learning.* Invited seminar presented as part of the Illinois Researchers in partnership with K-12 Science Educators (iRiSE) Project, Department of Physics, University of Illinois at Urbana-Champaign, Champaign, IL.

DeStefano, L., Goggin, N., Mortensen, P., & Abd-El-Khalick, F. (2010, August). *Beyond survival: Thriving in your career.* Panel conducted as part of the symposium on "Mid-Career Faculty Development" organized by the Provost Office, University of Illinois at Urbana-Champaign, Champaign, IL.

Chancellor Herman, R., Senator Frerichs, M., Governor Edgar, J., DeStefano, L., & Abd-El-Khalick, F. (2009, April). *Financial and structural issues in elementary and secondary education: A human development perspective.* Roundtable discussion and public forum

conducted at the 2009 Cline Symposium on "Higher education and human capital development: A Morrill Act for the 21st century," Cline Center for Democracy, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2009, March). *The nature of science and high school chemistry textbooks.* Invited session presented at the 24th Annual Conference for Enhancing Chemistry Teaching sponsored by the Chemistry Department, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2007, October). *Conceptualizing, executing, and seeing your research through publication.* Invited seminar presented as part of the Math, Science, and Technology (MST) Division Pro-seminar, Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2007, October). *Students' and science teachers' conceptions of nature of science: A national study of grade 10 in Turkey.* Invited seminar presented as part of the Cognitive Science of Teaching and Learning (CSTL) Division seminar series, Department of Educational Psychology, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2005, December). *The influence of training in metacognitive strategies on preservice elementary teachers conceptions of nature of science.* Invited seminar presented as part of the College Scholars Program, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2005, November). *Impacting preservice elementary teachers' views of nature of science: A continuing journey.* Invited seminar presented as part of the seminar series at the Department of Curriculum and Instruction, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2004, November). *Philosophy of science and college students' views of nature of science.* Invited seminar presented at the department of Natural Sciences seminar series, Parkland College, Champaign, IL.

Abd-El-Khalick, F. (2004, September). *The development of students' science epistemologies in the middle and high school years.* Invited seminar presented at the Physics Education Group seminar series, Physics Department, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2004, May). *Learning about the nature of science as conceptual change: Factors that mediate the development of pre-service elementary teachers' views of nature of science.* Invited seminar presented as part of the CATE (Curriculum and Teacher Education) seminar series, Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

McCarthey, S., Bresler, L., & Abd-El-Khalick, F. (2004, April). *Preparing your work for publication.* Panel conducted at the Curriculum and Instruction Graduate Student Symposium, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

DeStefano, L., Abd-El-Khalick, F., Greene, J., Anderson, C., Baroody, A., & Grosshandler, E. (2004, March). *NSF proposal strategies.* Seminar organized by the Bureau of Educational Research, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2003, November). *The development and schooling of views of nature of science in secondary school: Some preliminary findings.* Invited seminar presented at the Developmental Division Brown Bag, Department of Psychology, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2002, April). *Publishing in refereed journals for graduate students and beyond*. Colloquium conducted as part of the Mathematics, Science, and Technology Division Colloquium Series, Department of Curriculum and Instruction, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2002, January). *The development of conceptions of nature of scientific knowledge and knowing in the middle and high school years: A cross-sectional study.* Seminar presented as part of the Faculty Fellows program, Bureau of Educational Research, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2001, October). *Dissertation research as a "hoop" versus "springboard": My story!* Colloquium conducted as part of the Mathematics, Science, and Technology Division Colloquium Series, Department of Curriculum and Instruction, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (2001, October). *History and nature of science: Active transport might work but osmosis does not!* Invited talk given at the Department of Educational Psychology, University of Illinois at Urbana-Champaign, Champaign, IL.

Abd-El-Khalick, F. (1998, November). *History of science and views of the nature of science: Assumed connection and gloomy reality.* Seminar presented as part of the Science and Mathematics Education Center seminar series in science education for 1998/99, American University of Beirut, Beirut, Lebanon.

Editorial Responsibilities

Editorial Review Boards

2014–present	Editorial Board, *Science: Philosophy, History and Education* (book series). Dordrecht, The Netherlands: Springer.
2008–present	Editorial Board, *International Journal of Science Education.*
2007–present	Editorial Review Board, *Educational Sciences: Theory & Practice.*
2006–present	Editorial Review Board, *Journal of Science Education and Technology.*
2006–present	Editorial Board, *Science and Technology Education Library* (book series). Dordrecht, The Netherlands: Springer.

2005–present	Editorial Board, *Euroasia Journal of Mathematics, Science, and Technology Education*.
2004–present	Editorial Committee, *Science & Education*.
2002–present	Board of Reviewers, *Science Education.*
2000–2004	Editorial Board, *Journal of Research in Science Teaching.*
1999–2004	Editorial Review Board, *Journal of Science Teacher Education.*

Invited / Occasional Reviewer

2010–present	Invited Reviewer, *Research in Science & Technological Education* (May, 2010; March, 2014).
2011–present	Invited Reviewer, *American Educational Research Journal* (February, 2011).
2009–2009	Invited Reviewer, *Research in the Teaching of English* (November, 2008).
2004–2005	Invited Reviewer, *Educational Researcher* (February, 2004).
2003–present	Reviewer, *International Journal of Science and Mathematics Education.*
2002–present	Reviewer, *Review of Educational Research.*
2002–present	Reviewer, *Science Books & Films,* Directorate for Education and Human Resource Programs, American Association for the Advancement of Science.
2002–2004	Reviewer, *Science & Education.*
2001–present	Reviewer, *Journal of Elementary Science Education*.
2001–2002	Invited Reviewer, *Social Studies of Science* (April, 2001).
2001–2002	Invited Reviewer: *Journal of Curriculum Studies* (February, 2001).
1999–2000	Senior Reviewer, *Journal of Research in Science Teaching.*
1997–1999	Reviewer, *Science and Children.*
1995–2001	Reviewer, *School Science and Mathematics.*

Consultations

March 2014: Texas Higher Education Coordinating Board, The State of Texas, Austin, TX. Worked in a three-member team to review a proposed Doctor of Education (EdD) in Curriculum and Instruction program at the University of Houston–Clear Lake.

July 2012: United States Agency for International Development (USAID)-funded *Developing Rehabilitation Assistance to Schools And Teacher Improvement (D-RASATI)* Project, Lebanon. Led a seven-member team of university professors train 90 civil servants from across public education agencies in Lebanon responsible for preservice teacher education, inservice teacher professional development, and teacher monitoring and evaluation on

using the ProGReSS SCaLe. Initiated the development of National Professional Teaching Standards to be adopted by the Lebanese Ministry of Education and Higher Education.

December 2011: United States Agency for International Development (USAID)-funded *Developing Rehabilitation Assistance to Schools And Teacher Improvement (D-RASATI)* Project, Lebanon. Led a seven-member team of university professors to train 75 civil servants from across public education agencies in Lebanon responsible for preservice teacher education, inservice teacher professional development, and teacher monitoring and evaluation on using the ProGReSS SCaLe.

July 2011: United States Agency for International Development (USAID)-funded *Developing Rehabilitation Assistance to Schools And Teacher Improvement (D-RASATI)* Project, Lebanon. Coordinated among various stakeholders in Lebanon engaged with delivering, monitoring, and evaluating the education of public school teachers to develop a plan for a national pilot study to assess public school teachers' instructional practice.

May 2011: United States Agency for International Development (USAID)-funded *Developing Rehabilitation Assistance to Schools And Teacher Improvement (D-RASATI)* Project, Lebanon. Analyzed extant Lebanese Ministry of Education and Higher Education instructional practice classroom observation tools and developed a consolidated tool for use across public education agencies responsible for preservice teacher education, inservice teacher professional development, and teacher monitoring and evaluation. The tool is the **Pro**fessional **G**rowth and **Re**forms **S**upport **S**ystem: **S**tandards-based **C**l**a**ssroom observation for **Le**banon (ProGReSS SCaLe).

June, 2010: United States Agency for International Development (USAID)-funded *Education Quality and Access for Learning and Livelihood Skills (EQuALLS)* Project, Philippines. Analyzed data and reported on findings from the baseline *Standards-based Classroom Observation Protocol for Educators* (SCOPE) study.

March–April, 2010: Nile Egyptian Schools (NES), A Project with the Education Development Fund of Egypt, Cairo, Egypt. Analyzed the NES science curriculum framework (grades 1–10) for alignment with international curricular standards and trends.

September, 2009: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Modified the *Standards-based Classroom Observation Protocol for Egypt* (SCOPE), developed an associated scoring system, and advised on institutionalizing the tool and scoring system to assess K-12 teachers' progress toward professional promotion under the new Ministry of Education Professional Academy for Teachers (PAT).

August–October, 2008: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Analyzed data and reported on findings from the Year IV SCOPE educational quality study.

December, 2007–January, 2008: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Developed a week-long Training for Trainers (TOT) professional development workshop focused on: "Teaching for Problem Solving and Critical Thinking in Preparatory Science Grades."

August–October, 2007: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Analyzed data and reported on findings from the Year III SCOPE educational quality study.

March, 2007: Middle East Partnership Initiative (MEPI)-funded, "Looking Forward Summit: Harnessing Instructional and Communication Technologies to Build the Future of Yemeni Education," Yemen. Helped conceptualize, plan, and conduct the summit.

September–December, 2006: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Analyzed data and reported on findings from the Year II SCOPE educational quality study.

July, 2006: Middle East Partnership Initiative (MEPI)-funded, *Instructional Leadership and Supervision Initiative Project*, Yemen. Conducted a review of the quality of teacher training materials and monitoring and evaluation plans.

June–July, 2005: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Analyzed data and reported on findings from the Year I SCOPE educational quality study.

March, 2005: United States Agency for International Development (USAID)-funded *Education Reform Project*, Egypt. Designed a 6-day workshop and led a team to train 160 Egyptian school supervisors to use the *Standards-based Classroom Observation Protocol for Egypt* (SCOPE) to collect data for a continuing 5-year educational quality study.

December, 2004: USAID-funded *Education Reform Project*, Egypt. Developed an instrument, the *Standards-based Classroom Observation Protocol for Egypt* (SCOPE), and associated plans for a continuing 5-year educational quality study of instructional practices as part of the overall Monitoring and Evaluation program for the project.

July, 2003: USAID-funded *New Schools Program*, Egypt. Contributed to developing an interactive video training tool for use by the Education Development Center (Washington, DC) in training Egyptian supervisors develop concrete understandings of the enactment of active, student-centered teaching in Egyptian classrooms.

January–February, 2003: USAID-funded *New Schools Program*, Egypt. Conducted a four-day training titled "Instructional Leadership Clusters: Education Quality Supervisory Support Teams" for senior staff of the Cairo-based Education Development Center (Washington, DC), Cairo, Egypt.

January, 2003: USAID-funded *New Schools Program*, Egypt. Participated in coordinating and delivering a teacher-training module on "Student Centered Teaching" developed by the Education Development Center (Washington, DC).

November, 2002: USAID-funded *New Schools Program*, Egypt. Developed a strategic plan ("Instructional Leadership Clusters: Education Quality Supervisory Support Teams") and associated training materials to ensure the effective implementation and sustainability of the central trainings offered by the Education Development Center (Washington, DC) through building local educational leaders, supervisors, and teachers' capacity for ongoing school-based training, support, and supervision of classroom teachers.

June, 2001: USAID-funded *New Schools Program*, Cairo, Egypt. Developed and delivered a six-day training titled "Collecting and interpreting qualitative data: Interviews and focus groups," for the Cairo-based staff of the Education Development Center (Washington, DC).

April–May, 2001: United Nations Educational, Scientific and Cultural Organization (UNESCO), Cairo Office. Conducted a comprehensive literature review and prepared a report on: "Integrating Technology in Teaching Secondary Science and Mathematics: Effectiveness, Models of Integration, and Illustrative Examples."

1996–1998: North Bend School District, North Bend, OR. Evaluated the district's K-5 science program with a focus on assessing elementary teachers' classroom practices in relation to the achievement of the program goals.

1997–1998: American Association for the Advancement of Science Project 2061. Conducted a critical evaluation of selected published curricula for their content match with Project 2061 Benchmarks for teaching nature of science at the elementary and secondary school levels.

1995–1996: Lawrence Livermore National Laboratory, Livermore, CA. Evaluated a 9-12 curriculum spiral titled "Biotechnology Education Program." Evaluation activities included designing instruments, and collecting and analyzing data to assess student achievement and teacher performance in relation to the program objectives.

Professional Activities

Professional Organizations

Executive Board Member, National Association for Research in Science Teaching, 2015–2019. (Ex-officio position)

Executive Board Member, National Association for Research in Science Teaching, 2004–2007. (Elected position)

Member, Advisory Council, International History, Philosophy, and Science Teaching Group, 2001–2005.

Occasional Reviewer (National and International)

Invited Reviewer, Springer, Dordrecht, The Netherlands. Book proposal title: "Science Teacher Education for Responsible Citizenship: Towards a Pedagogy for Relevance through Socio-Scientific Issues," November, 2015.

Senior Reviewer, 11th International Conference of the Learning Sciences, Boulder, CO, 2014.

Invited Reviewer, National Science Teachers Association (NSTA) Press. Book proposal title: "Strengthening the foundation: Correcting misconceptions about the nature of science," July, 2013.

Invited Reviewer, Springer, Dordrecht, The Netherlands. Book proposal title: "Science journalism: Theory and practice," August, 2012.

Invited Reviewer, Routledge, New York. Book proposal title: "Teaching the Nature of Science: Perspectives & Resources," June, 2011.

Reviewer, Strand 5: Nature of science, History, Philosophy, Sociology of Science. Biannual conference of the European Science Education Research Association, Lyon, France, September, 2011.

Section Chair, Section 4: Science, Division C: Learning and Instruction. Annual meeting of the American Educational Research Association, New Orleans, LA, 2011.

Invited Reviewer: Springer, Dordrecht, The Netherlands. Book proposal title: "Advances in the nature of science research: Concepts and methodologies," February, 2011.

Panel Reviewer, *Review Panel for the Research on Evaluation on Education in Science and Engineering (REESE) Program*, Directorate for Education and Human Resources, Division of Research on Learning in Formal and Informal Settings, the National Science Foundation, Washington, DC, January, 2010.

Reviewer, Strand 13: History, Philosophy, and Epistemology. Annual meeting of the National Association for Research in Science Teaching:

Chicago, IL, 2015
Pittsburgh, PA, 2014
Indianapolis, IN, 2012
Garden Grove, CA, 2009
Baltimore, MD, 2008
New Orleans, LA, 2007

Reviewer, Strand 8: History, Philosophy, and Epistemology. Annual meeting of the National Association for Research in Science Teaching:

San Diego, CA, 2006
Dallas, TX, 2005
Vancouver, Canada, 2004
Philadelphia, PA, 2003
New Orleans, LA, 2000
Boston, MA, 1999
San Diego, CA, 1998

Reviewer, Division C: Learning and Instruction; Section 4: Science. Annual meeting of the American Educational Research Association:

San Diego, 2009
New York, NY, 2008
Chicago, IL, 2007
San Francisco, CA, 2006
Montreal, Canada, 2005
San Diego, CA, 2004.

Invited Reviewer, Routledge, New York. Book proposal title: "Making sense of science teaching," September, 2008.

Invited Reviewer, Springer, Dordrecht, The Netherlands. Book proposal title: "Critical appraisal of science as a human enterprise: Dynamics of scientific progress," May, 2008.

Proposal Reviewer, the Tenth Annual Science and Mathematics Teachers Conference (SMEC X), American University of Beirut, November 11–12, 2007.

Reviewer, proposal title, "Science teachers' beliefs and practice, and their impact on students' perceptions of science teaching." Programming Council for Educational Research (PROO), Social Sciences Research Council, Netherlands Organization for Scientific Research (NOW), November, 2005.

Chair, *Review Panel for the Noyce Scholarship Program*, Directorate for Education and Human Resources, Division of Undergraduate Education, the National Science Foundation, Washington, DC, May, 2005.

Panel Reviewer, *Review Panel for the Noyce Scholarship Program*, Directorate for Education and Human Resources, Division of Undergraduate Education, the National Science Foundation, Washington, DC, May, 2004.

Invited Reviewer: Abell, S., & Lederman, N. G. (Eds.). *The handbook of research on science education.* Mahwah, NJ: Erlbaum. Chapter title: "Perspectives on science learning," February, 2004.

Invited Reviewer, Sage Publications, Thousand Oaks, CA. Book proposal title: "History of science for teachers: The construction and reconstruction of scientific concepts," April, 2003.

Reviewer, annual international meeting of the Association for the Education of Teachers in Science, St. Louis, MO, 2003.

Reviewer, Division C: Learning and Instruction; Section 3: Science. Annual meeting of the American Educational Research Association:

Chicago, IL, 2003
New Orleans, LA, 2002
Seattle, WA, 2001
New Orleans, LA, 2000

Invited Reviewer: Appleton, K. (Ed.). *Elementary science teacher education: Contemporary issues and practices.* Mahwah, NJ: Erlbaum. Chapter title: "The elementary science teacher as researcher," February, 2002.

Invited Reviewer: Special issue of *School Science and Mathematics*. Manuscript title: "Collaborative efforts designed to immerse future teachers in learner-centered environments," February, 2002.

Reviewer, Division K: Teaching and Teacher Education; Section 1a: Teaching, Teacher Education, and Teacher Learning in Math and Science. Annual meeting of the American Educational Research Association:

New Orleans, LA, 2002
Seattle, WA, 2001
New Orleans, LA, 2000

Invited Reviewer: Science & Technology Education Library, Kluwer Academic Publishers, Dordrecht, The Netherlands. Book proposal title: "Science education in philosophical and cultural perspective," March, 2001.

Panel Reviewer, *Review Panel for Teacher Enhancement*, Directorate for Education and Human Resources, Division of Elementary, Secondary, and Informal Education, the National Science Foundation, Washington, DC, November, 2001.

Reviewer, SIG-Subject Matter Knowledge & Conceptual Change. Annual meeting of the American Educational Research Association, Seattle, WA, 2001.

Reviewer, Strand 4: Teacher Education. Annual meeting of the National Association for Research in Science Teaching, New Orleans, LA, 2000.

National

Program Chair, "Toward an Illinois Learning Sciences Design Laboratory: A Lightning Symposium," February 27, 2015. University of Illinois at Urbana-Champaign, Champaign, IL.

Presider, Session on *Epistemic Aspects of Science Teaching and Learning.* Strand 1: Science Learning, Understanding and Conceptual Change. Annual meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico, 2013.

Chair, Division C: Learning and Instruction; Section 4: Science. Roundtable session on *Perceptions in Science*. Annual meeting of the American Educational Research Association, San Francisco, CA, 2013.

Reviewer, second draft of the "Next Generation Science Standards" developed by Achieve in partnership with the National Academies of Science's National Research Council (NRC), National Science Teachers Association (NSTA), and the American Association for the Advancement of Science (AAAS). Champaign, IL; September, 2012.

Member, Group to review the first draft of the "Next Generation Science Standards" developed by Achieve in partnership with the National Academies of Science's National Research Council (NRC), National Science Teachers Association (NSTA), and the American Association for the Advancement of Science (AAAS). NSTA, Chicago, IL; February, 3, 2012.

Presider, Session on *Nature of Science.* Strand 8: In-service Science Teacher Education. Annual meeting of the National Association for Research in Science Teaching, Orlando, FL, 2011.

Presider, Session on *Preservice Teachers' Understandings and Perceptions of the Nature of Science.* Strand 7: Pre-service Science Teacher Education. Annual meeting of the National Association for Research in Science Teaching, Orlando, FL, 2011.

Presider, Session on *History and the Science Curriculum.* Strand 13: History, Philosophy, and Sociology of Science. Annual meeting of the National Association for Research in Science Teaching, Orlando, FL, 2011.

Presider, Session on *Argumentation and Knowledge Construction.* Strand 1: Science Learning, Understanding and Conceptual Change. Annual meeting of the National Association for Research in Science Teaching, Orlando, FL, 2011.

Member, The Early Career Research Award Committee, National Association for Research in Science Teaching, 2011–2014.

Member, Group to review the draft of the "Conceptual Framework for Science Education" by the National Research Council intended to guide the development of the Next Generation Science Standards. National Science Teachers Association, Chicago, IL; June, 26, 2010.

Presider, Paper set on *Curricula and Nature of Science.* Strand 13: History, Philosophy, and Sociology of Science. Annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA, 2010.

Chair, Session on *Developing Teachers: Cross-National Studies in Effective Teacher Practice, Training, and Development*. The 53rd annual conference of the Comparative and International Education Society, Charleston, SC, 2009.

Member, The Early Career Research Award Committee, National Association for Research in Science Teaching, 2008–2010.

Discussant, Division C: Learning and Instruction; Section 4: Science. Session on *Argumentation in K-16 Science Education*. Annual meeting of the American Educational Research Association, New York, NY, 2008.

Member, Advisory Board for the Course, Curriculum, and Laboratory Improvement (CCLI) Phase I grant, "Integrated Pedagogy to Promote Understanding of Nature of Science and Scientific Inquiry in a College Biology Laboratory," funded by the National Science Foundation Division of Undergraduate Education, 2008–2010.

External Reviewer, "Research on the teaching and learning of the scientific enterprise" developed by the Research Agenda in Science Education (RAISE) Project. (RAISE is sponsored through the National Science Teachers Association and funded by the National Science Foundation.) May, 2007.

Member, Advisory Board for the Conference on "Science, Technology, Engineering and Mathematics—Alternative Certification for Teachers" (STEM–ACT) funded by the National Science Foundation Directorate for Education and Human Resources, Washington, DC: May 5–7, 2006.

Member, Advisory Board for the Chicago Public Schools "Transitions into Teaching" grant funded by the United States Department of Education, 2005–2009.

Discussant, Division C: Learning and Instruction; Section 4: Science. Session on *Understanding Cognitive Processes in Science Learning*. Annual meeting of the American Educational Research Association, Montreal, Canada, 2005.

Presider/Discussant, Strand 8: History, Philosophy, and Epistemology. Session on *Teaching Nature of Science*. Annual meeting of the National Association for Research in Science Teaching, Dallas, TX, 2005.

Chair, the NARST Awards Committee, National Association for Research in Science Teaching, 2004–2007.

Chair, Ad hoc Committee on the History of Science Education, National Association for Research in Science Teaching, 2004–2010.

Discussant, Symposium on *Socioscientific Issues in Science Education: Research to Inform Practice and Policy.* Annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada, 2004.

Member, Campus Advisory Team for the National Science Foundation Grant, "Advancing the State-of-the-Art in Evaluation: Developing a Comprehensive, Value-Engaged Approach to Evaluating STEM Educational Programs," 2004–2005.

Coordinator, Strand 1: Learning: Students' Conceptions. Annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada, 2004.

Member, Advisory Board for the National Science Foundation Grant, "Induction and Mentoring in a Middle Grades Science and Mathematics Accelerated Teacher Preparation Program," 2003–2006. (Part of the University of Illinois-Chicago and Chicago Public Schools Advisory Board for the Middle Grades Science and Mathematics Programs.)

Coordinator, Strand 1: Learning: Students' Conceptions. Annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA, 2003.

Member, Ad hoc Committee to Examine Issues in the History of Science Education, National Association for Research in Science Teaching, 2002–2004.

Member, The Distinguished Contributions to Science Education through Research Award committee, National Association for Research in Science Teaching, 2002–2004.

Coordinator, Strand 8: History, Philosophy, and Epistemology. Annual meeting of the National Association for Research in Science Teaching, New Orleans, LA, 2002.

Chair, ICASE symposium on *Inquiry in Science Education: International Perspectives.* Annual meeting of the National Association for Research in Science Teaching, St. Louis, MO, 2001.

Coordinator, Strand 8: History, Philosophy, and Epistemology. Annual meeting of the National Association for Research in Science Teaching, St. Louis, MO, 2001.

Presider, Symposium on *Teachers Learning about Nature of Science in Authentic Science Contexts: Models of Inquiry and Reflection.* Annual meeting of the National Association for Research in Science Teaching, St. Louis, MO, 2001.

Chair, Division C: Learning and Instruction; Section 3: Science. Session on *Students' Scientific Reasoning in Learning Science.* Annual meeting of the American Educational Research Association, Seattle, WA, 2001.

Discussant, Division K: Teaching and Teacher Education; Section 1a: Teaching, Teacher Education, and Teacher Learning in Math and Science. Session on *Analysis of Teacher Support and Resistance in a Multi-District Elementary Science Reform Project.* Annual meeting of the American Educational Research Association, New Orleans, LA, 2000.

Presider/Discussant, Strand 8: History, Philosophy, and Epistemology. Session on *Science Education Research: Relevance to Practice.* Annual meeting of the National Association for Research in Science Teaching, Boston, MA, 1999.

Presider/Discussant, Strand 8: History, Philosophy, and Epistemology. Session on *Science Studies and Sociological Perspectives*. Annual meeting of the National Association for Research in Science Teaching, San Diego, CA, 1998.

Presider/Discussant, Strand 8: History, Philosophy, and Epistemology. Session on *Thinking and Learning in Science*. Annual meeting of the National Association for Research in Science Teaching, Oak Brook, IL, 1997.

Presider, Session on *Socialization Influences on Elementary Teachers Prepared in an Innovative Teacher Education Program: A Longitudinal Study*. Annual meeting of the Association for the Education of Teachers in Science, Cincinnati, OH, 1997.

International

External Dissertation Examiner, University of Cologne, Germany. Dissertation title, "Paving the way towards 'authentic chemistry teaching'–A contribution to teachers' professional development," September, 2014.

Evaluator of Faculty Research Output (Department of Science and Technology Education, University of Johannesburg), National Research Foundation, South Africa, June, 2014.

External Dissertation Examiner, Mara University of Technology, Malaysia. Dissertation title, "The views of the nature of science across different educational levels," April, 2014.

Member, International Scientific Committee, The 2014 Conference of The International Society of Educational Research, Cappadocia, Turkey, October 30–November 2, 2014.

Proposal reviewer, National Priorities Research Program (NPRP), Qatar National Research Fund, Qatar Foundation, 2009, 2011, 2014.

Proposal reviewer, Undergraduate Research Experience Program, Qatar National Research Fund, Qatar Foundation, 2007, 2008, 2012, 2013.

Proposal reviewer, Vice Provost Office for Research & Graduate Studies, United Arab Emirates University, Al-Ain, United Arab Emirates, November, 2012.

Member, International Advisory Committee, Walid and Helen Kattan Science Education Center (WHKSE), Qatan Center for Educational Research and Development, Ramallah, Palestine, 2012–present.

Opponent, Dissertation Public Examination, Department of Chemistry, Faculty of Science, University of Helsinki, Finland. Dissertation title, "Nature of science chemistry education: Design of chemistry teacher education course," November, 2012.

Proposal reviewer, National Priorities Research Program—Exceptional Proposals (NPRP-EP), Qatar National Research Fund, Qatar Foundation, 2012.

Proposal reviewer, The ARISTEIA Research Programme, National Council for Science and Technology of Greece, General Secretariat for Research and Technology of Greece, January, 2012.

External Dissertation Examiner, The University of Cape Town, South Africa. Dissertation title, "Exploring the coherence of grade six students' views of the nature of science (NOS) and of the natural world: A South African study," August, 2011.

Opponent, Dissertation Disputation, Department of Mathematics and Science Education, Stockholm University, Sweden. Dissertation title, "Teachers' language of inquiry: The conflation between methods and teaching and scientific inquiry in science education," October, 2010.

Proposal reviewer, Indo-US Science and Technology Forum, New Delhi, India. Proposal title, "A collaborative workshop in the use of specialized scientific visual media for teachers and university instructors," August, 2010.

External Dissertation Examiner, Queensland University of Technology, Brisbane, Australia. Dissertation title, "Exploring the influence of an argumentation-based science content course on preservice primary teachers' views of nature of science," May, 2008.

Evaluator of Faculty Research Output (School of Science and Mathematics Education, University of the Western Cape), National Research Foundation, South Africa, June, 2007.

Member, Advisory Committee of the Kuwait Foundation for the Advancement of Science (KFAS), 2002–2006.

Program Co-Chair, the Sixth International History, Philosophy, and Science Teaching Conference, Denver, CO, 2002.

Executive Secretary, Conference on School-Based Educational Reform in Arab Countries, American University of Beirut, Beirut, Lebanon, November 10–12, 2000. Organized by the Department of Education, Division of Education Programs, American University of Beirut, Beirut, Lebanon.

Co-chair, the Fourth Annual Science and Mathematics Teachers Conference (SMEC IV), May 12–13, 2000. SMEC is a regional conference organized by the Science and Mathematics Education Center, Division of Education Programs, American University of Beirut, Beirut, Lebanon.

Principal Organizer, the Seventh Annual National Science Fair, April 7–9, 2000. Organized by the Education Student Society and Science and Mathematics Education Center, Division of Education Programs, American University of Beirut, Beirut, Lebanon.

Co-chair, the Third Annual Science and Mathematics Teachers Conference (SMEC III), May 15, 1999. SMEC is a regional conference organized by the Science and Mathematics Education Center, Division of Education Programs, American University of Beirut, Beirut, Lebanon.

Principal Organizer, the Sixth Annual National Science Fair, May 28–30, 1999. Organized by the Education Student Society and Science and Mathematics Education Center, Division of Education Programs, American University of Beirut, Beirut, Lebanon.

University Service

Department of Curriculum and Instruction, College of Education, University of Illinois at Urbana-Champaign, Champaign, IL

Member, Faculty Advisory Committee, 2009–2011.

Member, Supplementary Promotion and Tenure Committee, 2008–2009.

Member, Promotion and Tenure Committee, Dr. Sharon Tettegah, 2008–2009.

Chair, Clinical Assistant Professor in Science Education Search Committee, 2008–2009.

Member, Promotion and Tenure Committee, Dr. Sharon Tettegah, 2007–2008.

Member, Faculty Advisory Committee, 2006–2008.

Member, Ad hoc Committee on Faculty Loads, 2006–2007.

Member, Department Leadership Team, 2006–2007.

Member, Mathematics Education Faculty Member Search Committee, 2005–2006.

Member, Ad hoc Committee on Evaluating Graduate Student Progress, 2004–2005.

Member, Faculty Advisory Committee, 2001–2004.

Member, Science Education Faculty Member Search Committee, 2001–2002.

Member, Illinois State Board of Education Science Area Review Committee, 2001–2002.

Member, NCATE Science Area Review Committee, 2001–2002.

Member, Department Team on *Exemplary Practices and Challenges in Teacher Preparation*, forum organized by the American Association of Universities and the American Academy of Arts and Sciences, 2000–2001.

Member, Educational Technology Faculty Member Search Committee, 2000–2001.

Member, Office of Clinical Experiences Assistant and Associate Directors Search Committee, 2001–2002.

College of Education, University of Illinois at Urbana-Champaign, Champaign, IL

Chair, O'Leary Learning Center Design Committee, 2015–present.

Conflict of Interest Contact, 2014–present.

Member, Governmental Relations Ad hoc Task Force, 2014–present.

Ex-officio, College Research Committee, 2014–present.

Ex-officio, Academic Programs Committee, 2014–present.

Co-Chair, Science Education Faculty Member Search Committee, 2014–2015.

Chair, Taskforce on Teacher Education Redesign: Final Phase, 2013–2014.

Member, Ad-hoc Task Force on Undergraduate Recruitment, Enrollment, and Admission, 2013.

Chair, Ad-hoc Committee on Faculty Recruitment, 2013–2015.

Member, Taskforce on Re-envisioning Teacher Education: Stage II, 2010–2013.

Member, Council of Department Executives, 2011–present.

Member, Human Resource Development Faculty Member Search Committee, 2011–2012.

Chair, Taskforce on the College of Education Rankings with the *US News & World Report*, 2010.

Member, College Executive Committee, 2009–2011.

Chair, "Entrepreneurial Leadership in STEM Teaching & learning" (EnLiST) Project Coordinator Search Committee, 2008–2009.

Member, STEM (Science, Technology, Engineering, and Mathematics) and Ubiquitous Learning Faculty Excellence Nomination Committee, 2008–2009.

Member, Research and Policy Analyst Search Committee, Illinois New Teachers Collaborative, 2007–2008.

Member, Intercollegiate Transfer Application Review Committee (Secondary Science), 2007–2008.

Presenter, "Technology, Engineering, and Mathematics Education Initiative," Board of Visitors Meeting, September, 2007.

Member, Human Subjects Committee, 2006–2008.

Member, Graduate Awards Committee, 2006–2008.

Chair, STEM (Science, Technology, Engineering, and Mathematics) Education Task Force, Fall 2006.

Member, Intercollegiate Transfer Application Review Committee (Secondary Science), 2006–2007.

Co-Chair, Strengths-Weaknesses-Opportunities-and-Threats (SWOT) Subcommittee of the College of Education Process Planning Committee, 2005–2006.

Member, Combined Leadership Committee for Strategic Planning, 2005–2006.

Member, Committee on Evaluating the Dean of the College of Education, 2005.

Member, College Executive Committee, 2004–2006.

Member, Hach Foundation Ad hoc Scholarship Committee, 2004–2005.

Member, Curriculum and Instruction Department Head Search Committee, 2004–2005.

Member, College of Education Website Redesign Extended Team, 2003–2005.

Member, College of Education Internationalization Committee, 2003–2004.

Member, Science Area of Specialization Committee, 2001–2005.

Advisor, Student Education Association (SEA), 2001–2004.

University of Illinois at Urbana-Champaign, Champaign, IL

Member, Design Center Executive Committee, Office of the Provost and Vice Chancellor for Academic Affairs, 2015–present.

Member, Research Policy Committee, Office of the Vice Chancellor for Research, 2015–2017.

Member, Campus Budget Advisory Task Force, Office of the Provost and Vice Chancellor for Academic Affairs, 2015–2016.

Member, Institutional Review Board –Social & Behavioral Sciences, Office of the Vice Chancellor for Research, 2015–2016.

Member, Design Center Program Working Group, Office of the Vice Chancellor for Academic Affairs and Provost, 2015-2016.

Member, Review Committee for Equipment Funding Proposals, Special Programs, Office of the Vice Chancellor for Research, 2014-2015.

Member, Sesquicentennial Design Building Planning Committee, Office of the Vice Chancellor for Academic Affairs and Provost, 2014-2015.

Reviewer, Campus Research Board:

2014-2015: One review
2012-2013: One review
2005-2006: Four reviews
2004-2005: Two reviews
2002-2003: Five reviews

Member, Planning Committee for Joint Area Centers Symposium, Center for South Asian and Middle Eastern Studies, 2013.

Member, University of Illinois Fulbright Interview Committee, 2010-2011.

Member, Faculty Senate, 2009–2011.

Member, Academic Freedom and Tenure Committee, Faculty Senate, 2009-2011.

Member, Annual Review Committee for the Director of the Illinois STEM Education Initiative, 2009–2010.

Advisor, Lebanese Cultural Club, 2008–2011.

College of Education Liaison, National Science Olympiad Planning Committee, 2003–2005.

Department of Education, Division of Education Programs, American University of Beirut, Beirut, Lebanon

Member, Curriculum and Examination Committee, 1998–2000.

Member, Practice Teaching Committee, 1998–2000.

Member, Sub-Committee on Revising Graduate Programs, 1998–1999.

Division of Education Programs, American University of Beirut, Beirut, Lebanon

Acting Chairperson, Academic Affairs Committee, 1999–2000.

Member, Committee for Revising Promotion Criteria, 1998–2000.

Member, Admissions and Student Affairs Committee, 1998–1999.

Advisor, Education Students Society, 1998–1999.

Leadership Development Activities

Fellow, CIC Academic Leadership Program, Committee on Institutional Cooperation (CIC), 2013-2014.

Department Executive Officers Seminar, Committee on Institutional Cooperation (CIC), Chicago, IL, October 11–13, 2012.

Senior Leadership Retreat, University of Illinois at Urbana-Champaign, Champaign, IL, August 16–17, 2012.

Supervision of Postdoctoral Fellows

Aybuke Pabuccu, Department of Science Education, Abant Izzet Baysal University, Bolu, Turkey; The Scientific and Technological Research Council of Turkey (TUBITAK); August, 2014–March, 2015.

Gülsüm Akyol, Department of Technical University, Middle East Technical University, Ankara, Turkey; August, 2014 –July, 2015.

Nihal Dogan, Department of Science Education, Abant Izzet Baysal University, Bolu, Turkey; The Scientific and Technological Research Council of Turkey (TUBITAK); July–September, 2013.

Suat Celik, Department of Science and Mathematics Education, Atatürk University, Erzurum, Turkey; The Scientific and Technological Research Council of Turkey (TUBITAK); August, 2007–May, 2008.

Nihal Dogan Bora, Gazi University, Ankara, Turkey; The Scientific and Technological Research Council of Turkey (TUBITAK); September, 2005–June, 2006.

PhD Advisees

Graduates

Sara Rose, Discussion Director, College Physics, Department of Physics, University of Illinois at Urbana-Champaign, Champaign, IL. Dissertation title, "*The effectiveness of pre-course and concurrent course interventions on at-risk college students' performance in an introductory mechanics course.*" (Graduated: December, 2013).

Sallie Greenberg, Assistant Director, Advanced Energy Technology Initiative, Illinois State Geological Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign, Champaign, IL. Dissertation title, "*Impact of social media as an instructional component on content knowledge, attitudes, and public engagement related to global climate change.*" (Graduated: May, 2013)

Ana Houseal, Outreach Science Educator, Science and Math Teaching Center, and Assistant Professor, College of Education, University of Wyoming, Laramie, Wyoming. Dissertation title, *"The impact of a student-teacher-scientist partnership (STSP) on students' and teachers' content knowledge and attitudes toward science."* (Graduated: May, 2010)

Nader Wahbeh, Director, Scientific Literacy Program, Al-Qatan Center for Educational Research and Development/Al-Qatan Foundation, Ramallah, West Bank, Palestine. Dissertation title, "*The effect of a content-embedded explicit-reflective approach on inservice teachers' views and practices related to nature of science."* (Graduated: August, 2009)

Noemi Waight, Associate Professor, Department of Learning and Instruction, Graduate School of Education, State University of New York, Buffalo, New York. Dissertation title, "*From scientific practice to science classrooms: Impact of technological tools on the enactment of 'authentic' inquiry in high school science classrooms.*" (Graduated: August, 2008)

Ava Zeineddin, Assistant Professor, Department of Teacher Education, College of Education, Wayne State University, Detroit, Michigan. (2009–2013). Dissertation title, "*Scientific reasoning and epistemological commitments: Coordination of theory and evidence among college science students*." (Graduated: June, 2008)

Issam Abi-El-Mona, Associate Professor and Chairperson, Department of Teacher Education, Rowan University, Glassboro, New Jersey. Dissertation title, "*Perceptions of argumentative discourse among freshmen college students, science teachers and practicing scientists.*" (Graduated: June, 2007)

Sara Salloum, Assistant Professor, Department of Teaching and Learning, Long Island University, New York. (2006–2014). Dissertation title, "*Teaching as 'practice': Blending the intellectual and the moral in pursuit of science teachers' practical knowledge.*" (Graduated: March, 2006)

Current

Ryan Summers
Darin Henigman

John Myers
Saadeddine Shehab
Sahar Alameh
Christina Silliman

Professional Organizations

Association for the Education of Teachers in Science (AETS)
American Association for the Advancement of Science (AAAS)
American Educational Research Association (AERA)
Lebanese Association for Educational Sciences (LAES)
National Association for Research in Science Teaching (NARST)
National Science Teachers Association (NSTA)
School Science and Mathematics Association (SSMA)
The Philosophy of Science Association (PSS)

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919.962.1365
F 919.962.1647
carol.folt@unc.edu

Mail Ballot

Board of Trustees

April 7, 2016

Attached for your review and approval is a memo concerning the terms of appointment and compensation for Fouad Abd-El-Khalick as Dean of the School of Education. This mail ballot will be approved as part of the consent agenda at the full board meeting on Thursday, May 19, 2016.

The undersigned votes as follows with respect to the recommendation proposed in Chancellor Folt's memorandum dated April 7, 2016

	Approve	Disapprove
Appointment and compensation for Fouad Abd-El-Khalick as Dean of the School of Education	☐	☐

Signature_____

Printed Name_____

Date_____

Please fax to TJ Scott at (919) 962-1647 or email at tj_scott@unc.edu

This ballot was approved by majority vote on April 8, 2016 by the following: Dwight Stone, Haywood Cochrane, Chuck Duckett, Lowry Caudill, Jeff Brown, Julia Grumbles, Kelly Hopkins, Ed McMahan, Hari Nath and Houston Summers. Trustee Allie Ray McCullen voted in disapproval.

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919.962.1365
F 919.962.1647
carol.folt@unc.edu

MEMORANDUM

TO: Members of the Board of Trustees

FROM: Carol L. Folt

RE: Mail Ballot

DATE: April 19, 2016

You have authorized my office to poll you by mail concerning personnel matters which require attention by the Board. Accordingly, we are transmitting to you herewith personnel actions as follows:

EHRA Faculty Compensation & Tenure Actions	Attachment A
EHRA Non-Faculty Compensation Actions	Attachment B

Please mark and return the enclosed mail ballot indicating whether or not you agree with the actions proposed. Thank you.

The University of North Carolina at Chapel Hill
EXECUTIVE SUMMARY
Board of Trustees
April 21, 2016

No.	College/Division	Name	Dept./School	Current Rank	New Rank	Tenure Request Reason	Effective Date	Salary
Personnel Actions								
New Appointments without Tenure								
1	Health Affairs	Janelle Arthur(Torchio)	Microbiology & Immunology	Research Assistant Professor	Assistant Professor		5/1/2016	$90,000.00
2	Academic Affairs	Lucinda Austin	School of Media & Journalism	N/A	Assistant Professor		7/1/2016	$75,500.00
3	Health Affairs	Lauren Brinkley-Rubenstein	Social Medicine	N/A	Assistant Professor		820/2016	$95,000.00
4	Health Affairs	Helen Lazear	Microbiology & Immunology	Nominated Assistant Professor	Assistant Professor		5/1/2016	$110,000.00
5	Health Affairs	Zoe McElligott	Psychiatry	Research Assistant Professor	Assistant Professor		4/22/2016	$63,600.00
6	Health Affairs	Christine Shenvi	Emergency Medicine	Clinical Assistant Professor	Assistant Professor		5/1/2016	$171,000.00
7	Academic Affairs	Claudia Yaghoobi	Asian Studies	N/A	Assistant Professor		7/1/2016	$70,000.00
Addition of Joint Appointment without Tenure								
0								
Promotion to Full Professor								
1	Health Affairs	Ethan Basch	Medicine/Health Policy & Management	Associate Professor	Professor		5/1/2016	$235,000.00
2	Academic Affairs	Claudio Battaglini	Exercise & Sport Science	Associate Professor	Professor		7/1/2016	$97,375.00
3	Academic Affairs	Jonathan Blackburn	Exercise & Sport Science	Associate Professor	Professor		7/1/2016	$90,021.00
4	Academic Affairs	Christina Burch	Biology	Associate Professor	Professor		7/1/2016	$91,311.00
5	Academic Affairs	Mimi Chapman	School of Social Work	Associate Professor	Professor		7/1/2016	$99,572.00
6	Academic Affairs	Anusha Chari	Economics	Associate Professor	Professor		7/1/2016	$166,100.00
7	Academic Affairs	Gregory Copenhaver	Biology	Associate Professor	Professor		7/1/2016	$115,444.00
8	Academic Affairs	Jennifer Ho	English & Comparative Literature	Associate Professor	Professor		7/1/2016	$85,300.00
9	Academic Affairs	Corbin Jones	Biology	Associate Professor	Professor		7/1/2016	$115,062.00
10	Academic Affairs	Morgan Pitelka	Asian Studies	Associate Professor	Professor		7/1/2016	$96,243.00
11	Academic Affairs	Zlatko Plese	Religious Studies	Associate Professor	Professor		7/1/2016	$83,508.00
12	Academic Affairs	Andrew Reynolds	Political Science	Associate Professor	Professor		7/1/2016	$119,300.00
13	Academic Affairs	Graeme Robertson	Political Science/Global Studies	Associate Professor	Professor		7/1/2016	$127,500.00
14	Health Affairs	Mark Zylka	Cell Biology & Physiology	Associate Professor	Professor		5/1/2016	$171,736.00
Reappointments to the same Rank								
1	Academic Affairs	Curtis Allen III	School of Government	Assistant Professor	Assistant Professor		6/1/2017	$120,510.00
2	Academic Affairs	Claire Baker	School of Education	Assistant Professor	Assistant Professor		7/1/2017	$72,420.00
3	Academic Affairs	Brandon Bayne	Religious Studies	Assistant Professor	Assistant Professor		7/1/2017	$69,885.00
4	Academic Affairs	Andrea Bohlman	Music	Assistant Professor	Assistant Professor		7/1/2017	$69,000.00
5	Academic Affairs	Gabrielle Calvocoressi	English & Comparative Literature	Assistant Professor	Assistant Professor		7/1/2017	$76,150.00
6	Academic Affairs	Laura Castro-Schilo	Psychology & Neuroscience	Assistant Professor	Assistant Professor		7/1/2017	$83,534.00
7	Health Affairs	Robert Coward	Urology	Assistant Professor	Assistant Professor		7/15/2017	$235,000.00
8	Academic Affairs	Sara DePasquale	School of Government	Assistant Professor	Assistant Professor		6/1/2017	$121,283.00
9	Academic Affairs	Adrienne Erickcek	Physics & Astronomy	Assistant Professor	Assistant Professor		7/1/2017	$78,005.00
10	Academic Affairs	Mary Flaherty	School of Information & Library Science	Assistant Professor	Assistant Professor		7/1/2017	$79,702.80

No.	College/Division	Name	Dept./School	Current Rank	New Rank	Tenure Request Reason	Effective Date	Salary
11	Academic Affairs	Kathleen Gates	Psychology & Neuroscience	Assistant Professor	Assistant Professor		7/1/2017	$83,446.00
12	Academic Affairs	Jennifer Gates-Foster	Classics	Assistant Professor	Assistant Professor		7/1/2017	$78,280.00
13	Academic Affairs	Julia Gibson	Dramatic Art	Assistant Professor	Assistant Professor		7/1/2017	$75,500.00
14	Academic Affairs	Stephanie Griest	English & Comparative Literature	Assistant Professor	Assistant Professor		7/1/2017	$73,450.00
15	Academic Affairs	Steven Hemelt	Public Policy	Assistant Professor	Assistant Professor		7/1/2017	$91,500.00
16	Academic Affairs	Leslie Hicks	Chemistry	Assistant Professor	Assistant Professor		7/1/2017	$84,000.00
17	Academic Affairs	Mohammad Hosein Jarrahi	School of Information & Library Science	Assistant Professor	Assistant Professor		7/1/2017	$80,738.00
18	Academic Affairs	Kristen Kucera	Exercise & Sports Medicine	Assistant Professor	Assistant Professor		7/1/2017	$78,780.00
19	Academic Affairs	Bo Li	Chemistry	Assistant Professor	Assistant Professor		7/1/2017	$84,000.00
20	Academic Affairs	Fei Li	Economics	Assistant Professor	Assistant Professor		7/1/2017	$126,500.00
21	Academic Affairs	Matthew Lockett	Chemistry	Assistant Professor	Assistant Professor		7/1/2017	$79,000.00
22	Academic Affairs	Laura Lopez-Sanders	Sociology	Assistant Professor	Assistant Professor		7/1/2017	$84,000.00
23	Academic Affairs	Amy Maddox	Biology	Assistant Professor	Assistant Professor		7/1/2017	$77,500.00
24	Academic Affairs	Paul Maddox	Biology	Assistant Professor	Assistant Professor		7/1/2017	$77,500.00
25	Academic Affairs	Chérie Ndaliko	Music	Assistant Professor	Assistant Professor		7/1/2017	$77,000.00
26	Academic Affairs	Brian Pietrosimone	Exercise & Sports Medicine	Assistant Professor	Assistant Professor		7/1/2017	$81,380.00
27	Academic Affairs	Tiago Pires	Economics	Assistant Professor	Assistant Professor		7/1/2017	$118,500.00
28	Academic Affairs	LaToya Powell	School of Government	Assistant Professor	Assistant Professor		6/1/2017	$104,030.00
29	Academic Affairs	Kathryn Reissner	Psychology & Neuroscience	Assistant Professor	Assistant Professor		7/1/2017	$83,486.00
30	Academic Affairs	Diego Riveros-Iregui	Geography	Assistant Professor	Assistant Professor		7/1/2017	$86,600.00
31	Academic Affairs	Stanislav Shvabrin	Germanic & Slavic Languages & Literature	Assistant Professor	Assistant Professor		7/1/2017	$72,900.00
32	Academic Affairs	Meredith Smith	School of Government	Assistant Professor	Assistant Professor		6/1/2017	$97,335.00
33	Academic Affairs	Eren Tasar	History	Assistant Professor	Assistant Professor		7/1/2017	$75,000.00
34	Academic Affairs	Brendan Thornton	Religious Studies	Assistant Professor	Assistant Professor		7/1/2017	$70,110.00
35	Academic Affairs	Scott Warren	Chemistry	Assistant Professor	Assistant Professor		7/1/2017	$79,000.00
36	Academic Affairs	Ronald Williams II	African, African American & Diaspora Studies	Assistant Professor	Assistant Professor		7/1/2017	$74,070.00
37	Academic Affairs	Yin Xia	Statistics & Operations Research	Assistant Professor	Assistant Professor		7/1/2017	$91,656.00
Designation/Reappointments to Departmental Chair								
0								
Designation/Reappointments to Distinguished Professorship								
1	Health Affairs	Leigh Callahan	Medicine	Distinguished Term Professor	Mary Ling Briggs Distinguished Term Professor		4/22/2016	$201,239.00
2	Health Affairs	Cheryl Giscombe	Nursing	Associate Professor	Melissa & Harry Levine Family Distinguished Term Professor		1/1/2016	$125,609.00
Actions Conferring Tenure								
Promotion Conferring Tenure								
1	Academic Affairs	Janice Anderson	School of Education	Assistant Professor	Associate Professor	Promotion based on research, teaching and service	7/1/2016	$72,345.00
2	Academic Affairs	Benjamin Arbuckle	Anthropology	Assistant Professor	Associate Professor	Promotion based on research and scholarship; teaching and service	7/1/2016	$76,900.00
3	Health Affairs	Silvana Barros	Periodontology	Associate Professor w/o Tenure	Associate Professor	Promotion based on excellence in research	6/1/2016	$136,568.00

The University of North Carolina at Chapel Hill
EXECUTIVE SUMMARY
Board of Trustees
April 21, 2016

No.	College/Division	Name	Dept./School	Current Rank	New Rank	Tenure Request Reason	Effective Date	Salary
4	Academic Affairs	Sabine Gruffat	Art	Assistant Professor	Associate Professor	Promotion based on research, teaching and service	7/1/2016	$80,812.00
5	Academic Affairs	Laura Halperin	English & Comparative Literature	Assistant Professor	Associate Professor	Promotion based on scholarship, teaching and service	7/1/2016	$70,700.00
6	Academic Affairs	Daniel Kreiss	School of Media & Journalism	Assistant Professor	Associate Professor	Promotion based on scholarship and teaching	7/1/2016	$85,258.13
7	Academic Affairs	Shayne Legassie	English & Comparative Literature	Assistant Professor	Associate Professor	Promotion based on research and scholarship	7/1/2016	$70,700.00
8	Health Affairs	Millie Long	Medicine	Assistant Professor	Associate Professor	Promotion based on excellence in clinical scholarship	7/1/2016	$184,981.00
9	Health Affairs	Raul Necochea	Social Medicine	Assistant Professor	Associate Professor	Promotion based on excellence in research	8/1/2016	$90,000.00
10	Academic Affairs	Zeynep Tufekcioglu	SILS	Assistant Professor	Associate Professor	Promotion based on research, teaching and service	7/1/2016	$85,500.00
11	Academic Affairs	Ariana Vigil	Women's & Gender Studies	Assistant Professor	Associate Professor	Promotion based on research and scholarship; teaching and service	7/1/2016	$77,116.00
New Appointments Conferring Tenure								
0								
Addition of Joint Appointment Conferring Tenure								
1	Academic Affairs	Emily Burrill	History	Associate Professor	Associate Professor		7/1/2016	$81,639.00
2	Health Affairs	Amanda Thompson	Nutrition	Associate Professor	Associate Professor		5/1/2016	$80,862.00
Corrections								
0								

The University of North Carolina at Chapel Hill
EXECUTIVE SUMMARY
Board of Trustees
July 14, 2014

Compensation Actions

* Available funding for each action has been confirmed by the appropriate Department and School/Division management officials to support the proposed salary increase. Upon implementation, specific funding sources are reviewed and approved at the Department level, as well as by the applicable University Central financial offices, including the University Budget Office and the Office of Sponsored Research for grant-funded salaries.

** Based on cumulative increase(s) to 6/30 salary

No.	College/Division	Name	School	Department	Rank	Reason	Requested Amount of Increase **	Percent of Increase **	June 30 Salary	Current Salary	New Salary	Effective Date
1	Academic Affairs	Carol Arnosti	Arts & Sciences	Marine Sciences	Professor	Increase due to preemptive retention offer, as Dr. Arnosti was invited to participate in a recruiting event for a chaired position at Rutgers University	$17,701	17.01%	$104,085	$104,085	$121,786	7/1/2016
2	Health Affairs	Antonio Bush	Pharmacy	PACE	Post Doc	Increase due to new faculty rank as Assistant Professor via Targeted Hire candidate	$72,000	167.44%	$43,000	$43,000	$115,000	7/1/2016
3	Health Affairs	Lori Carter-Edwards	Public Health	PHLP	Evaluator	Increase due to new faculty rank as Research Associate Professor via external competitive event	$19,376	18.59%	$104,224	$104,224	$123,600	5/1/2016
4	Academic Affairs	Christian Iliadis	Arts & Sciences	Physics & Astronomy	Professor	Increase due to new secondary administrative appointment as department Chair	$32,430	25.82%	$125,578	$125,578	$158,008	7/1/2016
5	Academic Affairs	Noreen McDonald	Arts & Sciences	City & Regional Planning	Associate Professor	Increase due to new secondary administrative appointment as department Chair	$28,500	29.53%	$125,000	$96,500	$96,500	7/1/2016
6	Health Affairs	Xin Ming	Pharmacy	Molecular Pharmaceutics	Research Assistant Professor	Increase due to promotion to Research Associate Professor	$59,803	99.35%	$60,197	$60,197	$120,000	5/1/2016
7	Health Affairs	Betty Nance-Floyd	Nursing		Clinical Assistant Professor	Increase due to service period change from 9 to 12 months ($21,764 or 33.8%), and due to new secondary administrative appointment as Director of the Center of Lifelong Learning ($12,945 or 20.1%)	$34,709	53.16%	$64,388	$65,291	$100,000	6/1/2016
8	Academic Affairs	Wayne Lee	Arts & Sciences	History	Distinguished Term Professor	Increase based on pre-empting an offer from US Army War College	$15,000	13.08%	$114,650	$114,650	$129,650	7/1/2016
9	Academic Affairs	Mary-Rose Papandrea	Law		Professor	Increase due to new secondary administrative appointment as Associate Dean	$40,000	22.86%	$175,000	$175,000	$215,000	7/1/2016
10	Health Affairs	Hae Won Shin	Medicine	Neurology	Clinical Assistant Professor	Increase due to retention counteroffer, as Dr. Shin has had an offer from the University of Illinois at Chicago's School of Medicine	$35,568	24.63%	$144,432	$158,181	$180,000	5/1/2016
11	Academic Affairs	Jeff Welty	Government		Associate Professor	Increase based on making existing temporary secondary administrative appointment as Director of Judicial College a long-term appointment	$18,678	15.25%	$122,498	$126,173	$141,173	5/1/2016
12	Health Affairs	Xiaopeng Zong	Medicine	Radiology	Research Associate	Increase based on new faculty appointment as Research Assistant Professor, via internal competitive event	$18,468	30.01%	$61,532	$61,532	$80,000	5/1/2016
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

Non-Salary Compensation Actions

No.	College/Division	Name	Department/School		Rank	Reason	Total Monetary Value of Non-Salary Compensation	Duration of Non-Salary Compensation		Effective Date	End Date	
0	N/A	N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A	NA

Appendix C

For Information

No.	College/Division	Name	Department/School	Rank	Description
0	N/A	N/A	N/A	N/A	N/A

Appendix D

Compensation Actions

* Available funding for each action has been confirmed by the appropriate Department and School/Division management officials to support the proposed salary increase. Upon implementation, specific funding sources are reviewed and approved at the Department level, as well as by the applicable University Central financial offices, including the University Budget Office and the Office of Sponsored Research for grant-funded salaries.

No.	College/Division	Name	Department/School	Rank	Reason	Requested Increase Amount	Percent of Increase	Current Salary	New Salary	Effective Date

Non-Salary Compensation Actions

No.	College/Division	Name	Department/School	Rank	Reason	Total Monetary Value of Non-Salary Compensation	Duration of Non-Salary Compensation	Effective Date	End Date	
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA

Compensation Actions

No	Last Name	First Name	College/Division	Department/School	Rank/Title	June 30 Salary	Proposed Salary	Requested Increase $$	Recquested Increase %	Effective Date	Justification
1	Kendrick	Anneglenn	Communications and Public Affairs	WUNC Radio	Assistant Director for Individual Giving	$ 67,500	$ 76,900	$ 9,400	13.93	3/1/2016	12 - Other (must explain in comments) - This request is based on labor market to bring the employee to the market rate of $76,900. A $6,716 increase was granted in August 2015 for retention. There are no comparable positions within the work unit. The requested salary results in a market index of 100%.
2	Lebold	Daniel	University Development	University Development	Director of Development for Global Education	$ 109,460	$ 125,865	$ 16,405	14.99	3/1/2016	12 - Other (must explain in comments) - This request is based on labor market to bring the employee closer to the market rate of $144,400. A $10,946 increase was granted effective July 2015 during the Annual Raise Process. There are no comparable positions within the work unit. The requested salary results in a market index of 87%.
3	Morgan	Laura	University Development	University Development	Senior Director of University Events	$ 125,851	$ 144,400	$ 18,549	14.74	3/1/2016	12 - Other (must explain in comments) - This request is based on labor market to bring the employee to the market rate of $144,400. A $12,585 increase was granted effective July 2015 during the Annual Raise Process. There are no comparable positions within the work unit. The requested salary results in a market index of 100%.
4	Wilkie	Deana	School of Public Health	Advancement	Director of Annual Giving and Alumni Affairs	$ 71,435	$ 82,114	$ 10,679	14.95	3/1/2016	2a - Increase in job duties or responsibilities; includes reclassification of branch/role - This is a salary adjustment related to a permanent increase in job duties or responsibilities. The current duties include generating a large volume of renewable gifts in the $25-$25,000 range from the School's 17,000 alumni and other donors; planning, designing, organizing, and implementing all aspects of Annual Giving, including personal solicitations, direct mail, social media, and special events; and overseeing volunteer recruitments, training, and management. The new, additional duties will include managing all aspects of alumni affairs, serving as the primary Advancement Office liaison with the School of Public Health Alumni Association, developing key messages and communications vehicles for alumni engagement, and maintaining contact with individual department-specific alumni committees and boards. A $7,072 increase was granted effective July 2015 during the Annual Raise Process. There are no comparable positions within the work unit. The employee meets the education and experience requirements for this classification with a Bachelor's degree in Journalism and 11 years of related experience.
5								$ -	#DIV/0!	2/1/2016	
6								$ -	#DIV/0!	2/1/2016	
7								$ -	#DIV/0!	2/1/2016	

Non-Compensation Actions

No	Last Name	First Name	College/Division	Department/School	Rank/Title	June 30 Salary	Proposed Salary	Requested Increase $$	Recquested Increase %	Effective Date	Justification
1	N/A	N/A	N/A	N/A	N/A						

Information Only - Competitive Recruitment Actions approved by President

No	Last Name	First Name	College/Division	Department/School	Rank/Title	June 30 Salary	Proposed Salary	Requested Increase $$	Recquested Increase %	Effective Date	Justification
1								$ -	#DIV/0!		
2											
3											
4											
5											
6											
7											
8											
9											
10											

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919.962.1365
F 919.962.1647
carol.folt@unc.edu

Mail Ballot

Board of Trustees

April 19, 2016

Chancellor Carol Folt submits for your review and approval the EHRA Faculty and EHRA Non-Faculty salary and compensation actions as recommended for April 2016. This mail ballot will be approved as part of the consent agenda at the Full Board meeting on Thursday, May 19, 2016.

The undersigned votes as follows with recommendation to these proposed actions as presented by the Chancellor.

	Approve	Disapprove
EHRA Faculty Salary Increases and Tenure Promotions (Attachment A)	☐	☐

	Approve	Disapprove
EHRA Non-Faculty Compensation Actions (Attachment B)	☐	☐

Signature_____

Printed Name_____

Date_____

Please fax to TJ Scott at (919) 962-1647 or email at tj_scott@unc.edu

This mail ballot was approved by majority vote on April 20, 2016 by the following: Dwight Stone, Haywood Cochrane, Chuck Duckett, Lowry Caudill, Julia Grumbles, Allie Ray McCullen, Ed McMahan, Hari Nath, and Houston Summers.

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919.962.1365
F 919.962.1647
carol.folt@unc.edu

TO: Members of the Board of Trustees

FROM: Carol L. Folt

RE: Personnel Mail Ballot

DATE: May 10, 2016

You have authorized me to poll you by mail ballot concerning personnel matters which require the immediate attention of the Board.

I am seeking approval to appoint Mr. Mark W. Merritt as the University's next Vice Chancellor and General Counsel. The appointment is effective September 6, 2016.

Mr. Merritt was chosen after an extensive nationwide search chaired by Felicia Washington, Vice Chancellor for Workforce Strategy, Equity and Engagement. He comes to us from Robinson, Bradshaw & Hinson in Charlotte, NC where he is a partner. Mr. Merritt received his Bachelor's degree from UNC Chapel Hill where he was a Morehead-Cain Scholar in 1979, and his J.D. from the University of Virginia in 1982.

The Board is asked to approve Mr. Merritt's appointment and compensation. Attached is the formal offer letter and a copy of Mr. Merritt's CV. Please complete the attached mail ballot and return to TJ Scott at your earliest convenience.

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919 962 1365
F 919.962.1647
carol folt@unc.edu

May 6, 2016

Mr. Mark Merritt
3201 Valencia Terrace
Charlotte, NC 28211

Dear Mark:

I am pleased to confirm your appointment as Vice Chancellor and General Counsel at the University of North Carolina at Chapel Hill, subject to approval of The University's Board of Trustees. As a Vice Chancellor, you will be classified as a Tier I Senior Academic and Administrative Officer and subject to all of the relevant human resources policies for employees in this category. The following outlines the specific details of your appointment:

Employment effective date:	September 6, 2016
Employment status:	At-will; subject to continuation or discontinuation at any time at the discretion of the Chancellor.
Compensation:	$437,349 per year based on a full-time (1.0 FTE) work schedule and subject to annual review. The Office of the Chancellor is responsible for initiating any changes in salary, subject to compensation policies adopted by the Board of Governors and/or Board of Trustees.
Leave Accrual:	26 days (208 hours) per year of annual (vacation) leave and 12 days (96 hours) per year of sick leave for full-time service. Up to 30 days (240 hours) of annual leave may be carried forward each calendar year with any excess balance converted to sick leave at year end. Sick leave does not have a maximum accrual rate.
Leave Payout at Appointment End:	Up to 30 days (240 hours) of annual leave; unused sick leave is not eligible for payout.
University Vehicle:	A sensible leased vehicle that meets reasonable cost parameters will be provided, at your selection, including customary insurance, maintenance, and operating costs, to be paid for by the University of North Carolina at Chapel Hill Foundation, Inc. At appointment end, the provided vehicle must be returned promptly to the appropriate University official. Please know that you can decline the vehicle.

Moving Allowance:	Customary and reasonable expenses related to moving household goods to a maximum amount of $15,000. Reimbursement must be requested no later than 180 days of the date of hire and is subject to University procurement rules which are summarized in the following document located at http://finance.unc.edu/files/2012/11/moving.pdf.
House Hunting Trips:	$3,000 of reasonable travel and lodging expenses for up to two (2) house hunting trips to Chapel Hill, North Carolina.
Temporary Housing Allowance:	$3,000 per month for a period of up to twelve (12) months in reimbursement of rent, utilities, and other expenses related to temporary housing in conjunction with relocation. All reimbursements require documentation of actual expenses. *(This is the max that can be approved by Chancellor. Greater amounts require BOT approval)*
Athletic Event Tickets:	You will be provided two tickets to UNC Men's basketball and football games. Please note that you may decline the tickets, pay for them entirely, or receive them at no cost. If you receive the tickets at no cost, the value of the tickets will be reported as taxable income.
Background Check:	Your appointment is conditional on satisfactory completion of the University's required criminal conviction and credentials checking processes. In the event these processes have not been fully completed at the time your appointment begins, this appointment may be rescinded if any remaining checks disclose information that in the University's judgement are sufficient to bar continued appointment. Before a final decision is made to rescind any appointment, the appointee will receive a copy of the information used in reaching this decision and will have an opportunity to provide any exculpatory or explanatory information.
Employment Policies:	Your appointment will be subject to the *Employment Policies for Tier I Senior Academic and Administrative Officers of the University of North Carolina at Chapel Hill* as presently defined and as they may be periodically revised. A copy of the policies currently in effect is enclosed with this letter and is also available at any time by consulting the University's Office of Human Resources web site at http://hr.unc.edu.

Your appointment is conditional on your acceptance of the terms and conditions stated in this letter and as set out in the "EHRA Non-Faculty Appointee Certifications and Conditions of Employment" (Form AP-2a), which is attached. Please signify your acceptance of these terms and conditions by signing and dating the enclosed copy of this letter, the Form AP-2a and the Recommendation for Personnel Action (Form AP-2) and returning to my office as soon as possible, and no later than one week from the date of your signature. A failure to return these signed documents within the indicated timeline may result in cancellation of your offer of appointment.

Accompanying this letter of appointment are "Equal Opportunity Employment Data Forms" which request information regarding gender and race/ethnicity information, Protected Veteran status and Individuals with Disability information. The University of North Carolina at Chapel Hill is an Equal Opportunity Employer. Collection of this information is in compliance with Federal laws and regulations, executive orders, and applicable State laws and regulations. The information that you submit will remain confidential and will be used by the UNC Chapel Hill Equal Opportunity and Compliance Office only for statistical and required reporting purposes. Completion of this data is voluntary; failure to provide this information will not adversely affect your candidacy or employment.

I look forward with great enthusiasm to our working together and in your leadership as the University's new Vice Chancellor and General Counsel. Welcome to The University of North Carolina at Chapel Hill.

Sincerely,

Carol L. Folt
Chancellor

Enclosure: Employment Policies for EHRA Non-Faculty Employees
EHRA Non-Faculty Appointee Certifications and Conditions of Employment" (Form AP-2a)
Equal Opportunity Employment Data Forms

Acknowledgment and Acceptance by Appointee:

Mark W. Merritt Date: 5/9/16
(Signature)

cc: Departmental Personnel File
EPA Non-Faculty Human Resources

ROBINSON BRADSHAW

Mark W. Merritt

101 North Tryon Street
Suite 1900
Charlotte, NC 28246
t : 704.377.8337
f : 704.373.3937
mmerritt@robinsonbradshaw.com

Mark Merritt's practice covers a broad range of business-related litigation including antitrust, complex and class action, and shareholder litigation. He regularly represents clients in governmental investigations, including civil and criminal investigations conducted by federal antitrust agencies and investigations by the Securities and Exchange Commission.

Mark counsels clients on antitrust issues and assists them in obtaining regulatory approvals from the Federal Trade Commission and the Department of Justice for corporate transactions. Additionally, he has assisted corporate clients in conducting internal investigations into accounting and financial irregularities.

Mark also represents clients who are faced with the condemnation of their property by a governmental authority. He has handled condemnation cases for golf courses, large outdoor amphitheaters, shopping centers, office buildings, industrial buildings and undeveloped land.

Experience

- Represents the Southeastern Conference in *In re NCAA Athletic Grant-in-Aid Cap Antitrust Litigation* in the Northern District of California.
- Represents Charlotte Pipe & Foundry in *In re Cast Iron Soil Pipe and Fittings Antitrust Litigation.*
- Represented BB&T and its directors and officers in obtaining the dismissal of a shareholder derivative action relating to the auction rate securities market.

Practice Areas

Antitrust and Trade Regulation

Appellate

Class Actions

Complex Commercial Litigation

Condemnation and Real Estate Disputes

Corporate, Partnership and Shareholder Rights Litigation

Governmental and Internal Investigations

Health Care

Intellectual Property and Technology

International

Land Use and Zoning

Securities

Sports and Entertainment

Bar Admissions

North Carolina

- Defended Wachovia Corporation's board of directors in litigation arising out of its merger with Wells Fargo.
- Represented opt-out plaintiffs Fruit of the Loom, Russell Athletics and Springs Industries in obtaining a multimillion dollar settlement of *In re Polyester Staples Fiber Antitrust Litigation.*
- Obtained summary judgment for client declaring North Carolina Installment Paper Dealer Tax unconstitutional. Client was awarded a tax refund in the amount of $35,885,976.
- Obtained $4.8 million jury verdict in condemnation action arising out of construction of an interstate highway on client's property. The award with interest was more than twice the Department of Transportation's estimate of just compensation.
- Represented investment banking client in several arbitrations involving fee disputes. Obtained award for the client and successfully defended against counterclaims.
- Represented public company in insider trading investigation brought by the SEC. The SEC decided not to file any enforcement action against the company or any of its directors, officers or employees.
- Represented manufacturing client in industry-wide, price-fixing investigation by the Department of Justice. No charges were brought by the Department of Justice arising out of the investigation.

Professional Affiliations

- North Carolina State Bar, President-Elect, 2015-16; Vice President, 2014-15; Councilor, 2006-present; Ethics Committee, Vice Chair, 2009, Chair 2010, 2011, 2013; Lawyers Assistance Program, Chair, 2008-12
- North Carolina Commission on the Administration of Law and Justice, Legal Professionalism Committee, Member
- North Carolina Bar Association, Antitrust and Trade Regulation Law Section, 1996-present; Chair, 2005
- Mecklenburg County Bar, President, 2000-01; Executive Committee; Treasurer, 1996-98
- Mecklenburg County Bar Leadership Institute
- American College of Trial Lawyers, Fellow
- International Society of Barristers, Fellow

Education

University of Virginia, J.D., 1982, Order of the Coif; Editor-in-Chief, *Virginia Law Review*, 1981-82

University of North Carolina at Chapel Hill, B.A., 1979, Phi Beta Kappa; John Motley Morehead Scholar; Phi Eta Sigma

- Law Clerk, The Honorable John M. Wisdom, U.S. Court of Appeals, Fifth Circuit

Community Affiliations

- Senior Warden, Christ Episcopal Church, 2007
- The Family Center, Board of Directors, 1994-99; President, 1997
- Legal Services of the Southern Piedmont, Board of Directors, 2013-14; 1989-98; President, 1992-94
- Morehead-Cain Scholarship Central Selection Committee, 2010-13

Honors & Awards

- North Carolina Bar Association, H. Brent McKnight Renaissance Lawyer Award, 2012
- Woodward/White, Inc., *The Best Lawyers in America,* bet-the-company litigation, commercial litigation, eminent domain and condemnation, litigation - antitrust, litigation - securities, 1999-2016; Charlotte Bet-the-Company Litigation Lawyer of the Year, 2012, 2014, 2016; Charlotte Litigation - Securities Lawyer of the Year, 2012; Charlotte Eminent Domain and Condemnation Law Lawyer of the Year, 2013, 2015
- Business North Carolina*,* Legal Elite Hall of Fame, antitrust and litigation
- *North Carolina Super Lawyers*, Top 10 North Carolina Super Lawyer, business litigation, 2007-16; top recipient of votes, 2009; Top 25 Charlotte, 2013-16
- *Chambers USA: America's Leading Business Lawyers*, litigation and antitrust, 2003-15
- *Benchmark Litigation*, North Carolina leading litigation attorney, antitrust, class actions, general commercial, securities, 2007-16
- Martindale-Hubbell, AV® Preeminent™ Peer Review Rated

Insights

- Supreme Court Rules Against NFL, Allows Antitrust Case to Proceed
  June 10, 2010
  Robinson Bradshaw Publication
- Ethical Implications of Outsourcing
  Winter 2008
  North Carolina State Bar Journal
- "Scheme Liability" Case
  Nov. 1, 2007
  Robinson Bradshaw Publication

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CAROL L. FOLT
Chancellor

103 SOUTH BUILDING
CAMPUS BOX 9100
CHAPEL HILL, NC 27599

T 919.962.1365
F 919.962.1647
carol.folt@unc.edu

Mail Ballot

Board of Trustees

May 10, 2016

Attached for your review and approval is a memo concerning the terms of appointment and compensation for Mark Merritt as Vice Chancellor and General Counsel. This mail ballot will be approved as part of the Consent Agenda at the Full Board meeting on Thursday, May 19, 2016.

The undersigned votes as follows with respect to the recommendation proposed in Chancellor Folt's memorandum dated May 10, 2016.

	Approve	Disapprove
Appointment and compensation for Mark Merritt as Vice Chancellor and General Counsel	☐	☐

Signature_____

Printed Name_____

Date_____

Please fax to TJ Scott at (919) 962-1647 or email at tj_scott@unc.edu

This mail ballot was approved by majority vote on May 10, 2016 by the following: Dwight Stone, Haywood Cochrane, Chuck Duckett, Lowry Caudill, Jeff Brown, Julia Grumbles, Bill Keyes, Allie Ray McCullen, Ed McMahan, Hari Nath and Houston Summers.

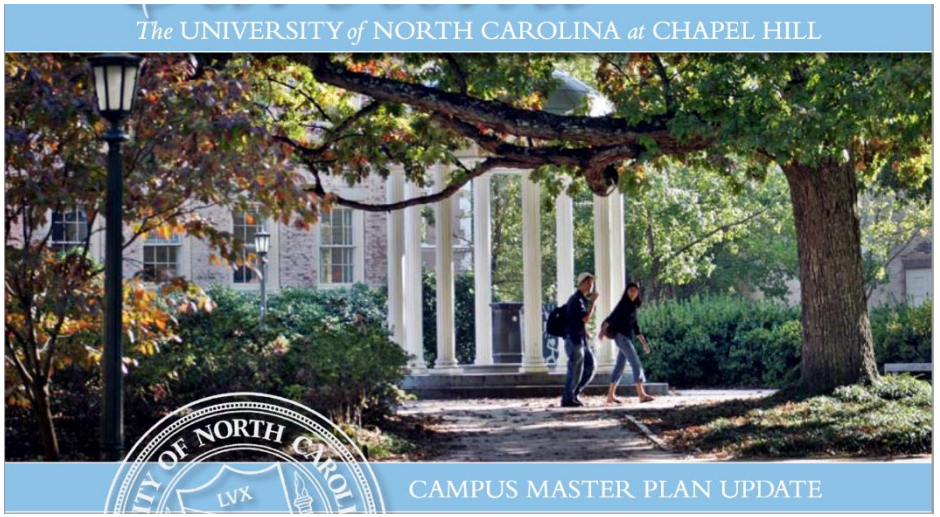
EDIBLE

CAMPUS UNC-CH

GROWING THE CAMPUS

Emily Auerbach
Chancellor's Fellow
University of North Carolina at Chapel Hill

A UNIQUE TIME



UNIQUE CHALLENGES

CAROLINA UPBOARD
COMMUNITY FOOD PANTRY
"Fighting hunger one Tar Heel at a time!"

Inter-Faith Food Shuttle
PIONEERING INNOVATIVE, TRANSFORMATIVE SOLUTIONS TO END HUNGER.

AN INNOVATIVE SOLUTION

Educational edible garden at Lenoir Dining Hall

EDIBLE GARDEN BENEFITS

FACULTY: Living laboratory

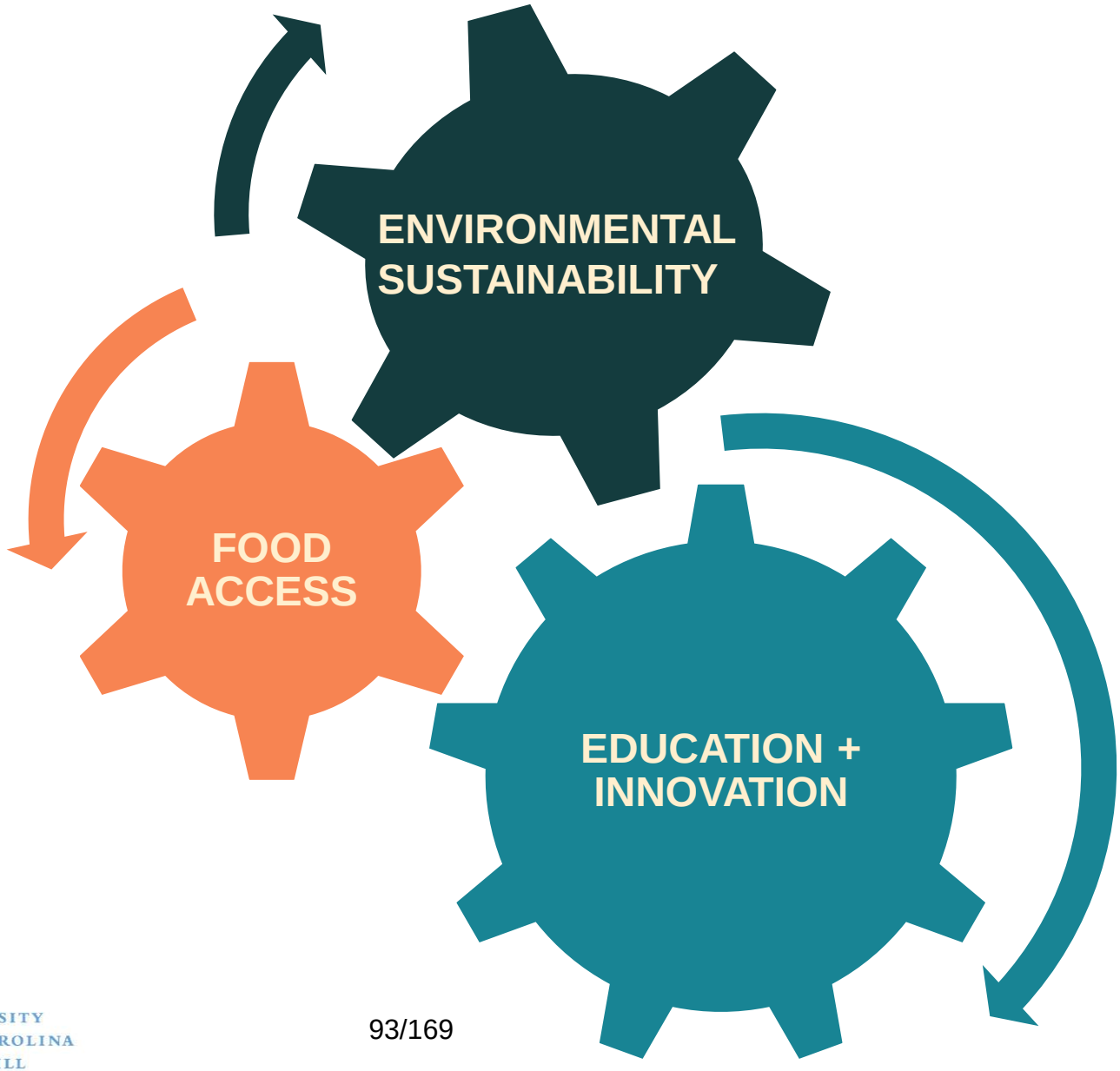
STUDENTS: Experiential education

STAFF: Free produce

COMMUNITY: Leadership and skills training

UNC-CH: Food system leadership

PROGRAM FRAMEWORK



PRECEDENT

Carolina Campus Community Garden

PROGRAM COMPONENTS

Planting Days

Internships

Demonstration Garden

OUR TEAM

GROUNDS SERVICES

Bridget Baucom
Tom Bythell
William Mitchell
Steve Gooch
Kevin Denardo

BOTANICAL GARDEN

Damon Waitt
Nancy Easterling
Claire Lorch

FACILITIES PLANNING

Anna Wu
Masaya Konishi
Jill Coleman

ADMINISTRATION

Carol Folt
Debbie Dibbert
Carol Tresolini

HERBAN GARDEN

Giszell Weather
Bronwyn Fadem

ENERGY SERVICES

Phil Barner
Doug Mullen
Bill Lowery

PROGRAMS

Tony Mayer
Carol Enarson

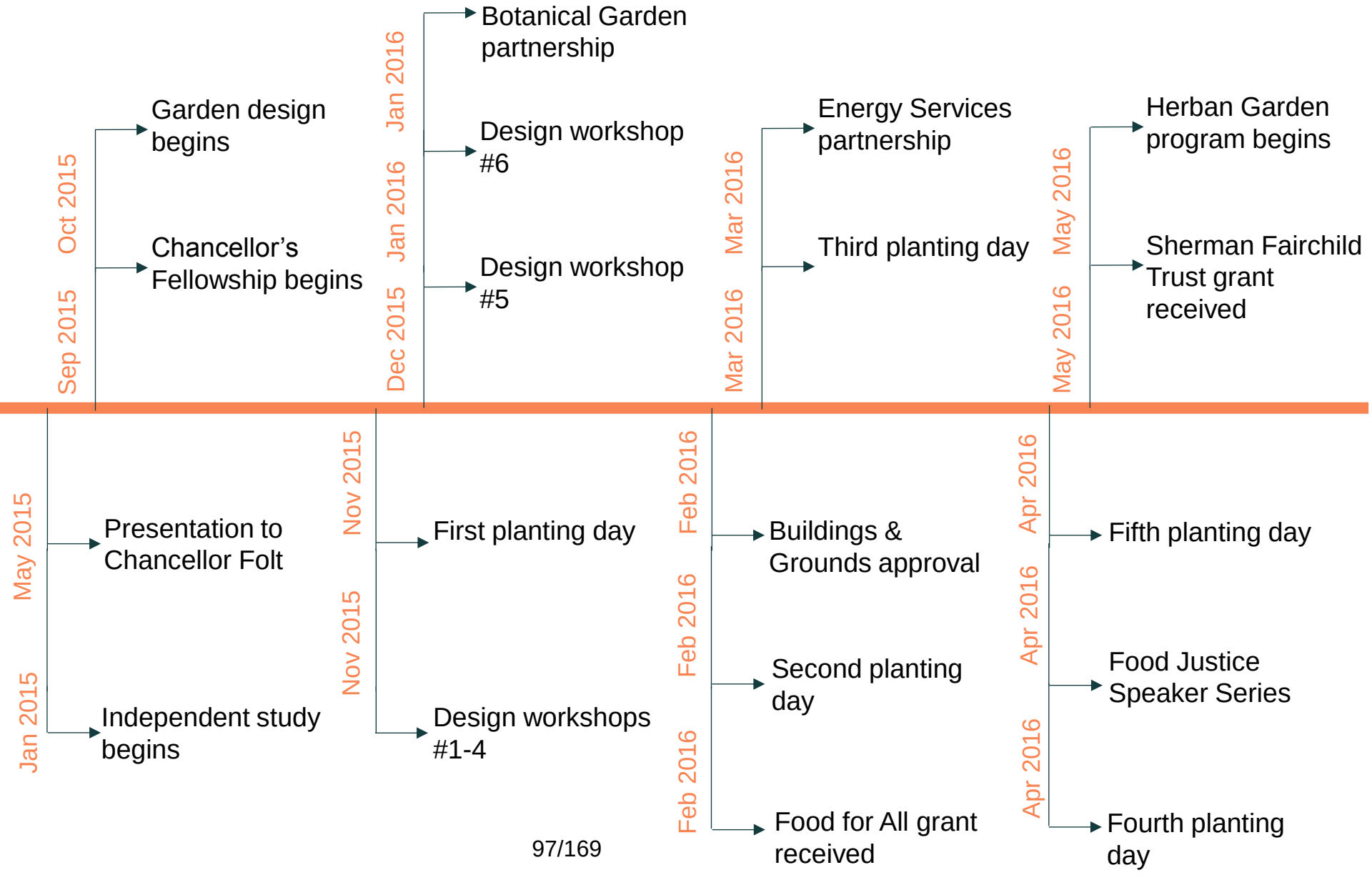
STUDENT ORGS

Kate Friedham
Jared Picot
Kate Goldenring
Omar Rezk

FUNDRAISING

Cynthia Butler
Charlotte Jones-Roe
Diane Frazier
Michelle Arroyo

PROGRAM TIMELINE



ACHIEVEMENTS TO DATE

700+

EDIBLE AND POLLINATOR-FRIENDLY PLANTS INSTALLED

100+

GARDEN DESIGN WORKSHOP PARTICIPANTS

$200K

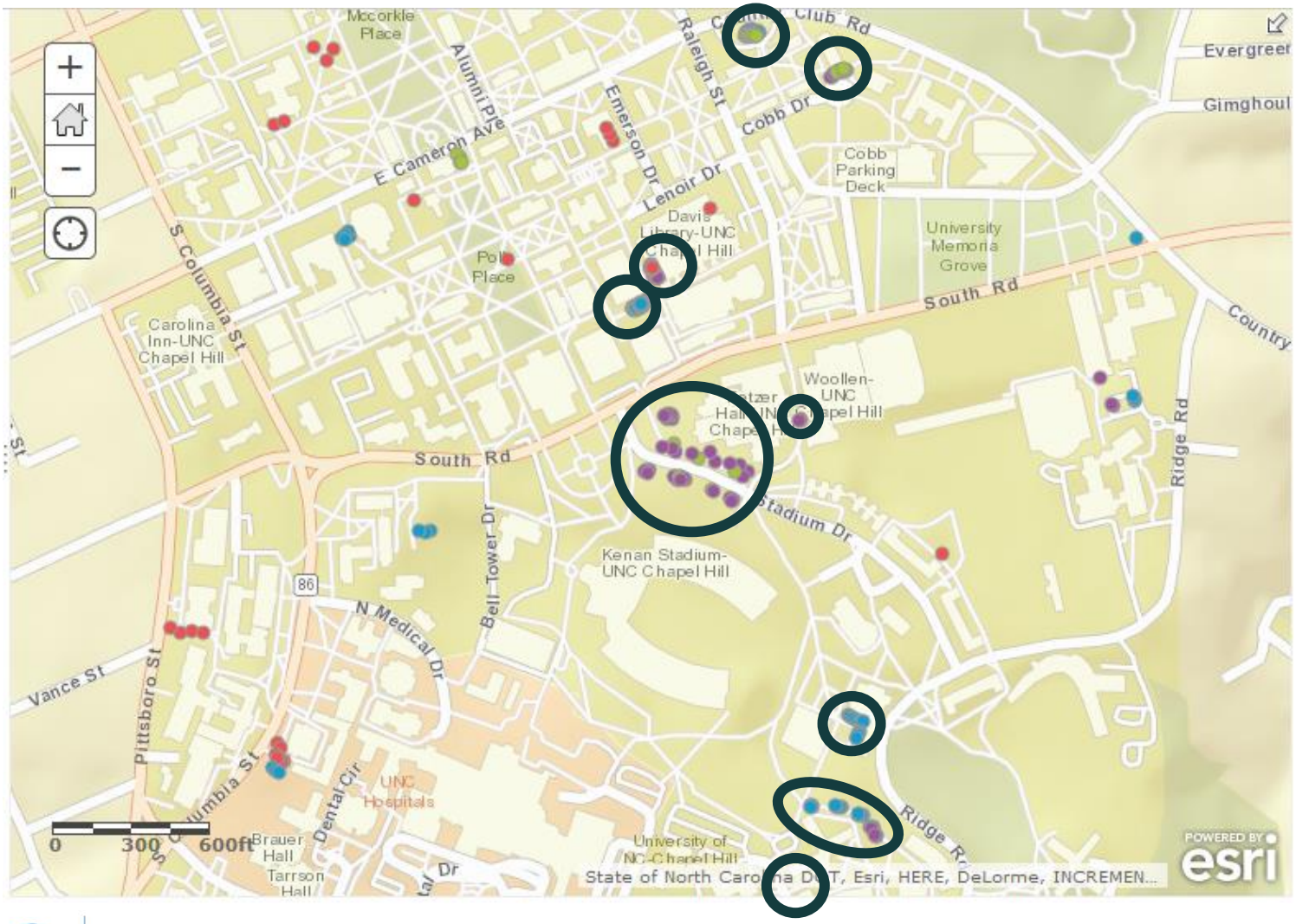
RAISED TO SUPPORT THE PROGRAM

150+

PLANTING DAY PARTICIPANTS

ACHIEVEMENTS TO DATE

GARDEN SITES



- Vegetable
- Shrub
- Flower
- Tree
- Herb
- Grass
- Other

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

EDIBLE CAMPUS UNC-CH

ACHIEVEMENTS TO DATE

PLANTING DAYS

ACHIEVEMENTS TO DATE

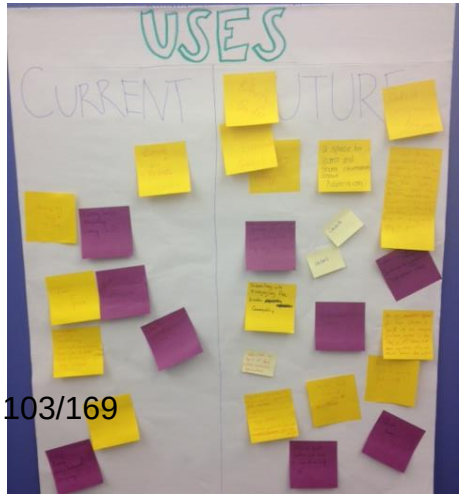
INTERNSHIPS

ACHIEVEMENTS TO DATE

GROUNDS PARTNERSHIP

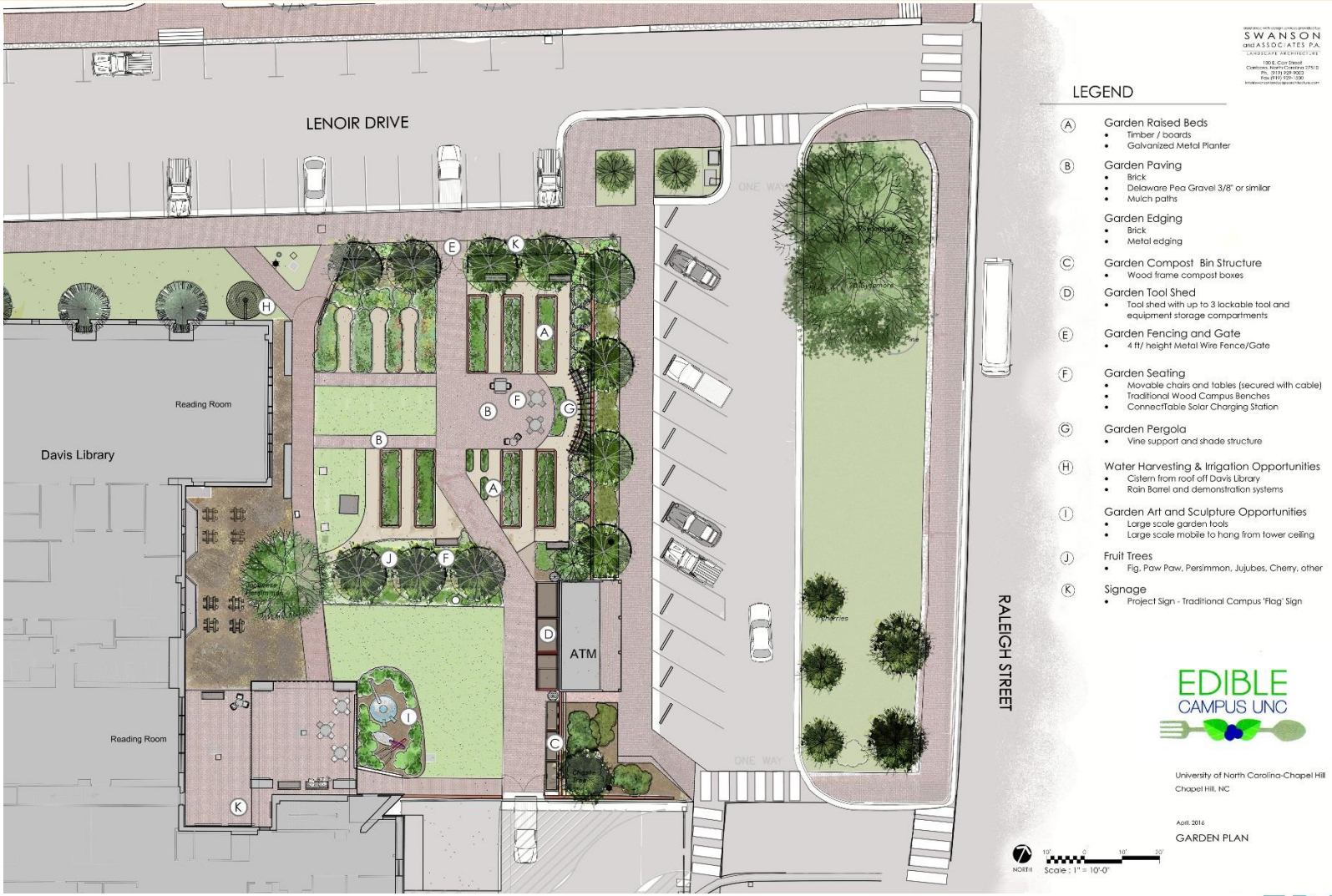
ACHIEVEMENTS TO DATE

GARDEN DESIGN PROCESS



ACHIEVEMENTS TO DATE

GARDEN DESIGN



ACHIEVEMENTS TO DATE

GARDEN ELEMENTS

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

EDIBLE CAMPUS UNC-CH

ACHIEVEMENTS TO DATE

FOOD JUSTICE SPEAKER SERIES

ACHIEVEMENTS TO DATE

PRESS

Chancellor Folt delivers a speech alongside Associate Vice Chancellor Ives moments before signing the commitment to Real Food in Top of Lenoir on Tuesday.

Photo by Gabrielle Palacio / The Daily Tar Heel

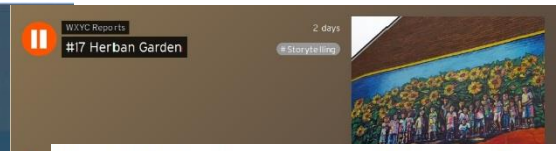
Edible garde

Edible garden proj

ABC11.COM

Bringing an idea to fruition

Share this story



WXYC Reports

#17 Herban Garden

2 days

Storytelling

New Edible Campus satellite gardens sprout up around UNC

HARRIS WHELESS | PUBLISHED 04/20/16 9:58PM

EDIBLE CAMPUS UNC

PILOT SITE

UNC project grows food for eating, education

Posted on April 2, 2016

by Jessica Porter

Download

You've heard the phrase April sho

this spring the rain may also bring

pollinator-friendly plants to the U

Students and volunteers have bee

through an initiative called the Ed

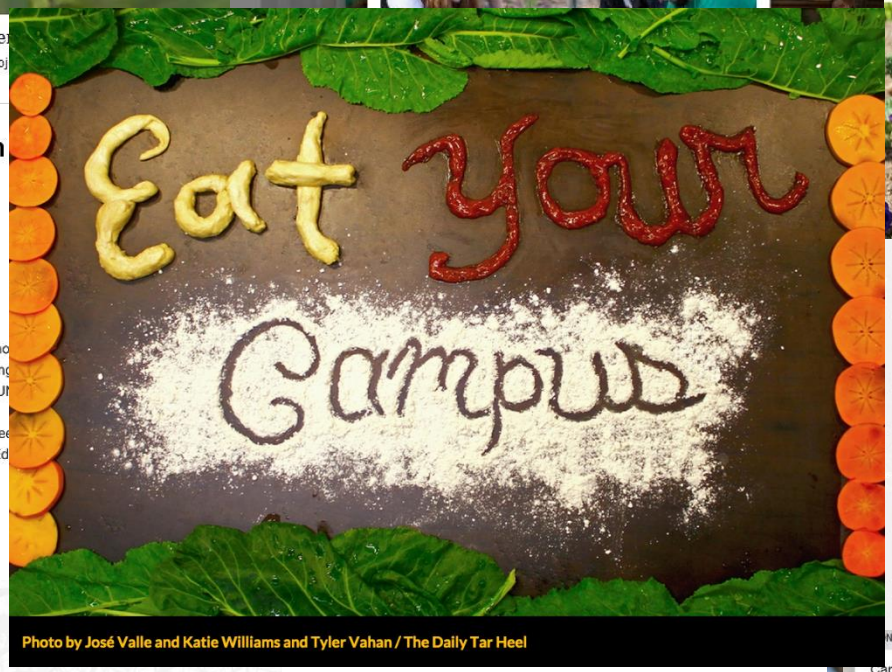


Photo by José Valle and Katie Williams and Tyler Vahan / The Daily Tar Heel

Well Said: Earth Day and an edible Chapel Hill

In this week's episode of the Well Said podcast, we're talking Earth Day and sustainable food sources with Carolina alumna and current Chancellor's Fellow Emily Auerbach. The director of the University's Edible Campus Initiative, Auerbach has been helping transform the University of North Carolina at Chapel Hill into an edible landscape.

wellsaid

Join us every Wednesday for the University's new podcast as we talk with Carolina's newsmakers a experts. Each week, students, faculty, staff and alumni will discuss whats going on in classrooms, la and around campus, and how it pertains to the local, national and international headlines.

You are what you eat – that's what Mom always said to nudge us into making healthy food choices. Now Mom has a new ally: …

READ MORE »

More Spotlight Stories

Group looks to bring crops to campus

by Chris Grunert

00:00 00:00

Download

NDAY, DECEMBER 7, 2015

Campus Community Plants First Edible Campus Garden

fresh produce and herbs

all. Over 80 students and

members recently participated in

ing day, facilitated by Grounds

ployees. Volunteers planted over

ants around campus, including

shes, persimmon trees, and

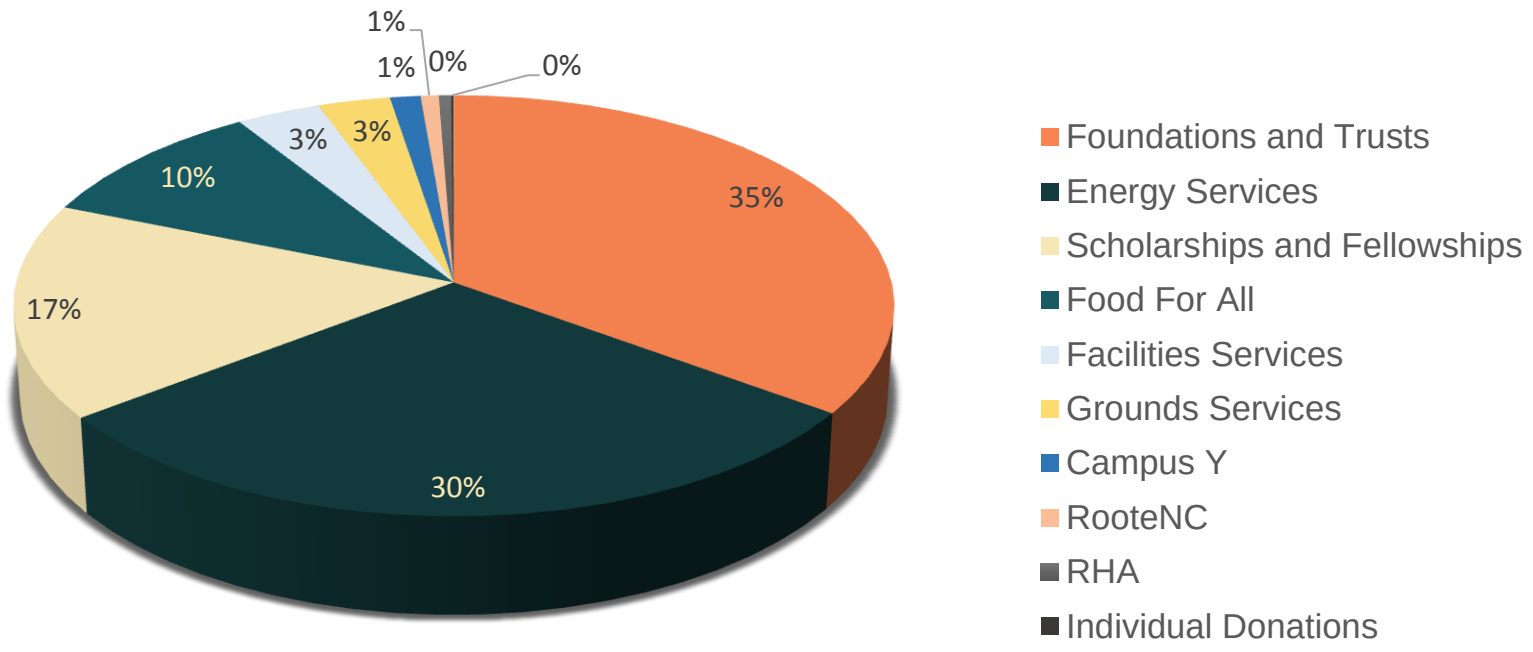
nts. Read more »

IC Sustainability Office at 12:31 PM

Labels: EatInUS

ACHIEVEMENTS TO DATE

FUNDS RAISED



TOTAL RAISED TO DATE: $200K

ACHIEVEMENTS TO DATE

STUDENT FEEDBACK

“I am very interested in food security and sustainable agriculture. I think creating an edible campus at UNC is an amazing step towards fostering a community focus on food access and nutritious eating habits!”

-ANALISA SORRELLS

Photo from Ritam Chakraborty

“The idea of an edible campus is really cool. It’s new and revolutionary, and I think it will make a lasting impact on UNC’s campus in an environmentally friendly way.”

-ERIN VANDERJEUGDT

NEXT STEPS

ADMINISTRATION: Edible Campus Coordinator

FUNDRAISING: Grant applications in progress

REPORT: Full report with recommendations

PROGRAMS: Summer pilot and fall internships

DAVIS GARDEN: Construction starts fall 2016

KEY TAKEAWAYS

- The Edible Campus program provides a **living classroom** for all Carolina community members

- Excess produce will be donated to CCCG, promoting **food access** and **health promotion** for low-paid university employees

- A network of partnerships and supporters, particularly Grounds Services and the North Carolina Botanical Garden, have created a **sustainable** program

- **The Edible Campus program will provide a physical and highly visible legacy for the "Food for All" academic theme**

It’s time to begin growing our campus.

SPENDING BREAKDOWN

Item	*Required*	*Raised*	*Spent*
Summer Staff	3,000	3,000	0
Administration	7,000	7,000	0
Design Services	7,000	7,000	7,000
Plants and Signage	7,425	7,225	7,225
Herban Garden Program	9,529	9,529	1,000
Equipment and Supplies	10,000	10,000	0
Chancellor's Fellow Position	30,000	30,000	30,000
Coordinator Position	48,064	48,064	0
Davis Garden Construction	121,666	80,000	0
TOTAL	**$243,684**	**$201,818**	**$45,225**

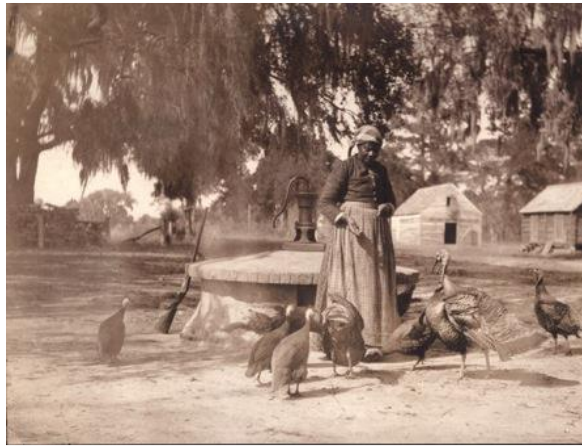
FOOD for ALL

FOODFORALL.WEB.UNC.EDU

University-Wide Academic Theme

WHY FOOD?

farmer's daughter
Rosey Strawberry
Rhubarb Jam



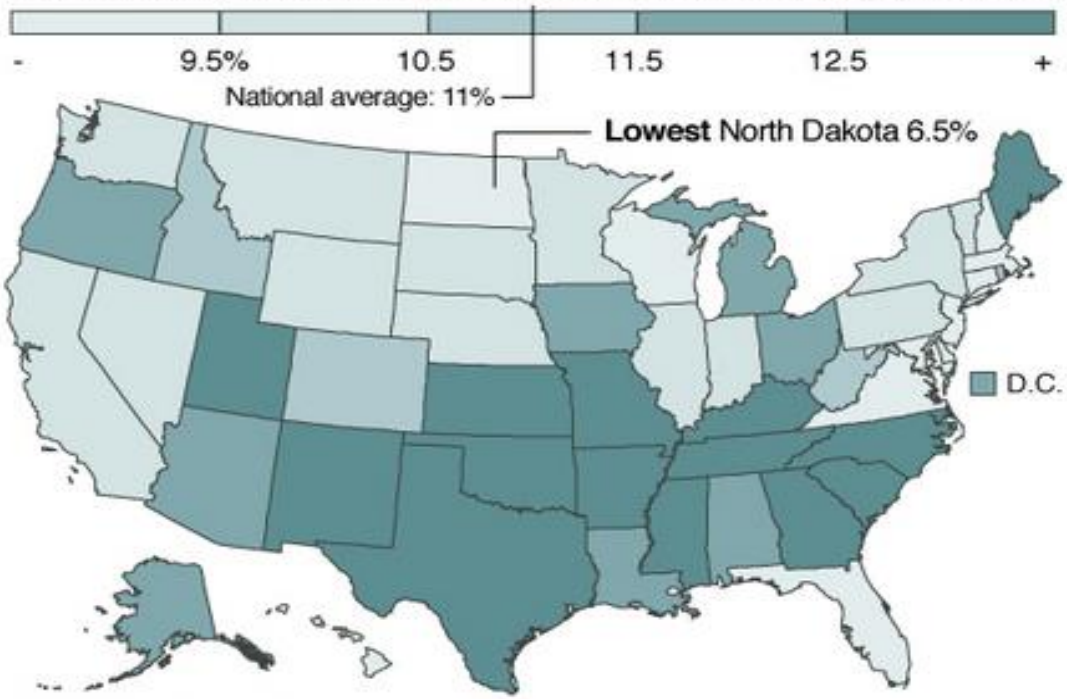
19 GIRLS

Food insecurity in the American South
15.6% OF HOUSEHOLDS (2012-13)

Limited access to food

At 17.4 percent, Mississippi had the highest average rate of food insecurity in the past three years.

Percentage of households that were food insecure, average, 2005-07



NOTE: Food insecurity means people did not always have access to enough food for an active, healthy life.

SOURCE: U.S. Department of Agriculture

ALEX AND BETSY HITT
Peregrine Farms, est. 1981
Graham, North Carolina

KEN DAWSON
Maple Spring Gardens, est. 1985
Cedar Grove, North Carolina

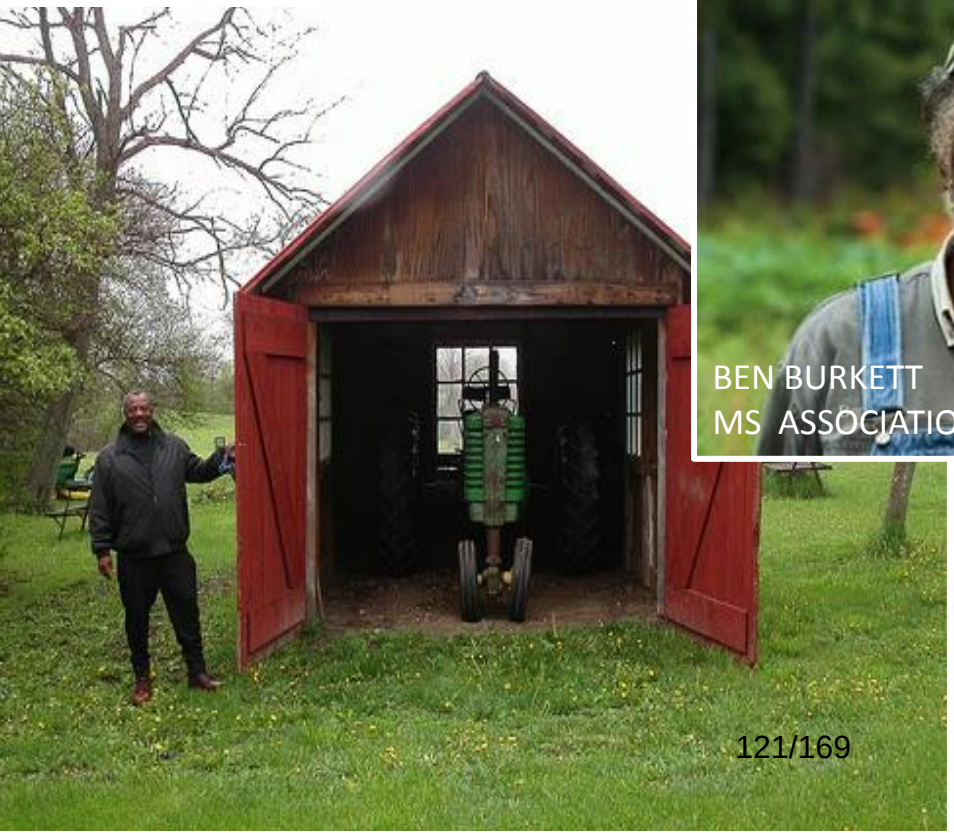
HUNGERFREE NC

FOOD CORPS NORTH CAROLINA

FEAST DOWNEAST
Bringing Local Farmers to Market

VEGGIE VAN
Community Nutrition Partnerships
Fresh • Local • Affordable

i ♥ new farmers
www.ncnewfarmers.org



20TH ANNIVERSARY
1994 – 2014
CEFS
CENTER for ENVIRONMENTAL FARMING SYSTEMS

NCSU | NCA&T | NCDA&CS

eastern carolina organics
eCO

NO KID HUNGRY
SHARE OUR STRENGTH

FOOD for ALL
LOCAL & GLOBAL PERSPECTIVES

WATER IN OUR WORLD

VISION STATEMENT

"Food for All: Local and Global Perspectives" **challenges the entire campus community to explore wide-ranging topics** from the regional study of food cultures and history in the American South to national and global issues of nutrition, community health and well-being, food security, world hunger, agricultural economics, resource management, sustainable development, climate change, and trade.

As an international leader in food cultures, nutrition, and public health, UNC-Chapel Hill has long embraced food-related research, teaching, publication, and service.

FOOD for ALL

LOCAL & GLOBAL PERSPECTIVES

FOOD for ALL

FOOD THEME INITIATIVES

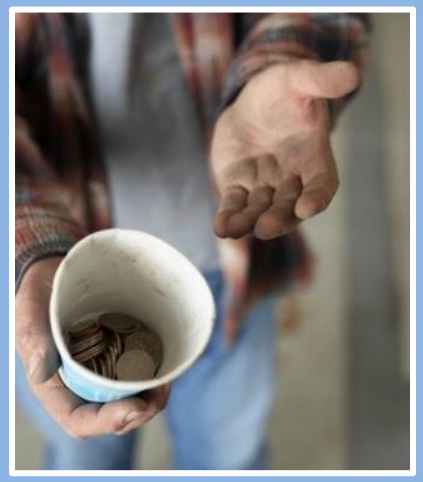
1. The University as food systems innovator
2. Teaching and learning about food
3. The contribution of food to health promotion and disease prevention
4. Food access/Food justice
5. The documentation of food cultures and history

FOODFORALL.WEB.UNC.EDU

University-Wide Academic Theme

PUBLIC HEALTH CHALLENGES

Among the most pressing public health problems in the U.S.

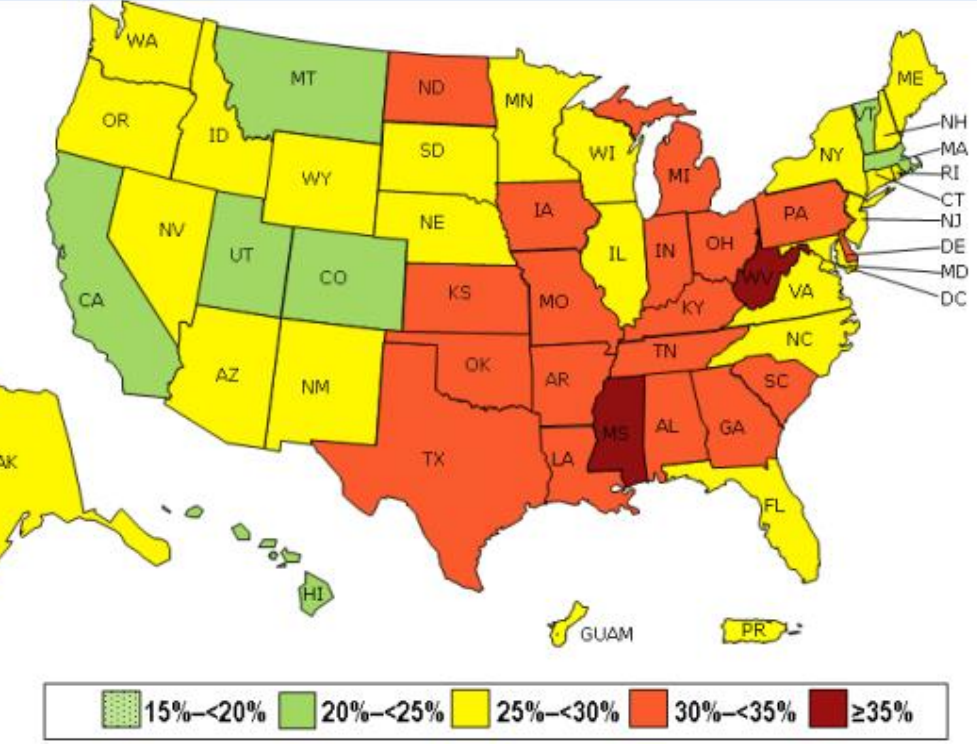


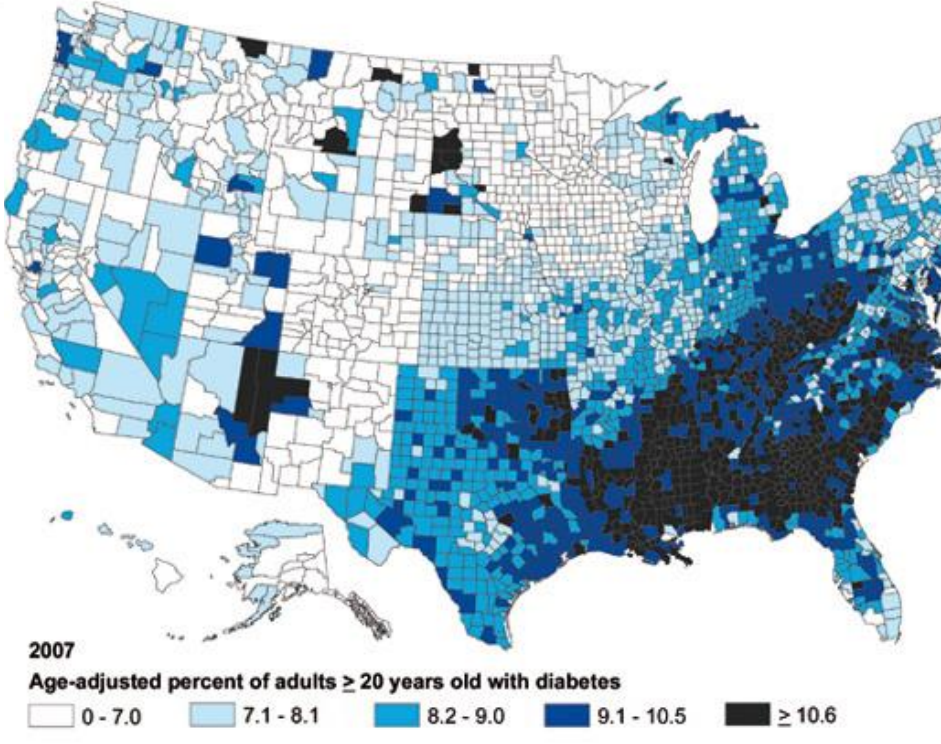
Economic/Health disparities and food insecurity

Environmental Degradation

Obesity, chronic disease

Contributing significantly to each of these problems is our current food system





Rates of Obesity Among Adults
North Carolina is the 17th most obese state in the nation

Diabetes is closely associated with obesity

1 in 3 Americans will have Diabetes by 2050

HEALTHY FOOD IS MAKING A COMEBACK

White House
Kitchen Garden

Tackling Hypertension in the Stroke Belt in NIH Study

A "Stroke Belt" has been identified in the southeastern United States, where stroke mortality rates are 150% of the national average. An even deadlier "Stroke Buckle" exists along that region's coastline, where deaths from strokes are twice the national average.

LENOIR COUNTY

Heart Healthy Lenoir Project

FINAL STUDY RESULTS

From the UNC–CH Study Director:

We are writing to provide the results from the Genomics Study (see other side of newsletter). Once again, we would like to thank everyone in the Lenoir County community who contributed to or took part in the Heart Healthy Lenoir Project. We are grateful to you for letting us be a part of your community. From the Lenoir County Health Assessments, we know that addressing obesity and high blood pressure are health priorities for the county. We hope that this project has helped your community identify ways to tackle these health issues. The research team wishes you well and hopes to partner with you in the future to promote good health!

Alice Ammerman

What did we do?

We conducted 3 studies to test whether or not the **Heart Healthy Lenoir Program** helped Lenoir County residents lower their heart disease risk.

How did we do it?

We offered 3 studies:

- A Lifestyle Study
- A High Blood Pressure Study
- A Genomics Study

Who participated?

664 community members in the Lenoir County area. Average age was 57 years, 72% were female, 60% Black and 39% White.

Community-wide Efforts to Promote Healthy Lifestyles

BBQ Festival

Living the Good

Lenoir Co Childhood Obesity Prevention

Restaurant Project

Funding provided by the National Institutes of Health, Grant #P50HL105184, to the UNC Center for Health Promotion and Disease Prevention (a CDC Prevention Research Center). UNC IRB #10-0395.

Lifestyle Study – This study lasted 2 years. During the first 6 months, everyone worked on improving their eating and physical activity habits. After that, about half also decided to work on weight loss.

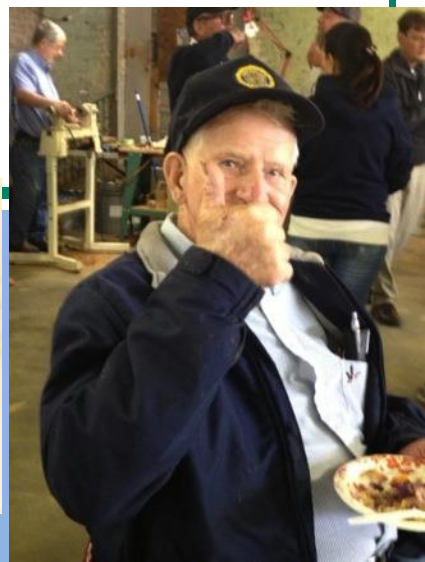
Did it work? YES

Overall, diet quality improved quite a bit! Those in the study started eating more healthy foods like nuts, vegetable oils, and fruits and veggies. They also drank less sugar-sweetened drinks like soda.

Blood pressure decreased a lot! Systolic (the top number) went down by 6 mm Hg and diastolic (the bottom number) went down by about 4 mm Hg.

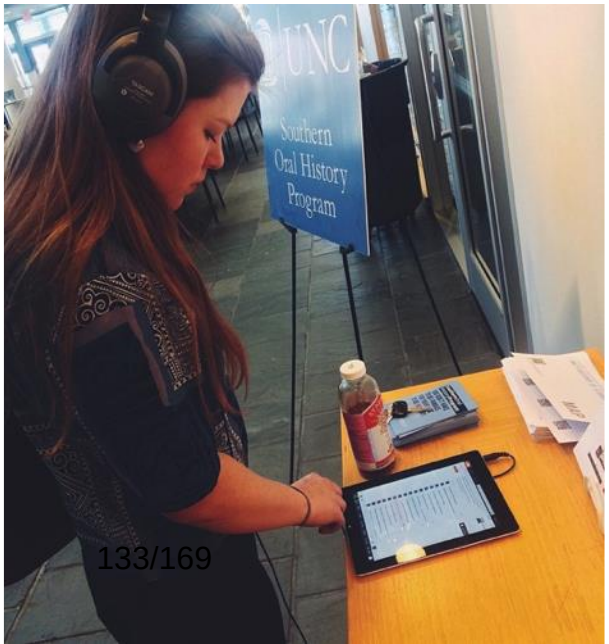
Many lost quite a bit of weight! About a quarter of those who worked on weight loss lost more than 5% of body weight (about 10 pounds or more). This amount of weight loss is similar to what is seen in most weight loss programs.

Almost all said they enjoyed taking part in this study!



GLOBAL AMERICAN SOUTH CONFERENCE

State of the Plate: Food and the Local/Global Nexus
March 2015, UNC-CH



CENTER for GLOBAL INITIATIVES

CENTER FOR THE STUDY OF THE AMERICAN SOUTH

Department of American Studies

Global Research Institute

Center for Health Promotion & Disease Prevention

★ American ★ FOOD ROOTS

STATE of the PLATE

Food and the Local/Global Nexus

MARCH 27 – 28, 2015

FedEx Global Education Center
The University of North Carolina at Chapel Hill

The State of The Plate: Food and the Local-Global Nexus brings together students, faculty, independent scholars, entrepreneurs, local organizations and community members to share current research, initiatives and insights that explore the history, aesthetics and contemporary politics of food from our local worlds in North Carolina to the global U.S. South.

Throughout this interdisciplinary gathering, we consider implications and connections between the changing food worlds of the U.S. South and the inter-connected global environment we share.

JOIN THE CONVERSATION #StateOfPlate

The State of the Plate is chaired by Marcie Cohen Ferris (American Studies) and is part of the Global American South project. The conference is presented by the University of North Carolina at Chapel Hill's Center for Global Initiatives, Center for the Study of the American South, Department of American Studies and the Global Research Institute. Additional support provided by American Food Roots and the UNC Center for Health Promotion and Disease Prevention.

Food and beverage is provided by the Carolina Brewery, The Crunkleton, Fuller's Old Fashioned BBQ, Mediterranean Deli, NC Catch, Piedmont Wine Imports, The Root Cellar and Whole Foods.

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

UNC.EDU/PLATE

GLOBAL AMERICAN SOUTH CONFERENCE

State of the Plate: Food and the Local/Global Nexus
March 2015, UNC-CH

FOOD STUDIES AT CAROLINA

AMERICAN STUDIES/FOLKLORE

- AMST 375, Food & American Studies: Cooking Up a Storm
- AMST 498/410: Carolina Cooks, Carolina Eats: NC Food Cultures

ANTHROPOLOGY

- ANTH 151: Food & Culture
- ANTH 252: Archaeology of Food
- ANTH 551: Origins of Agriculture in the Ancient World

ASIAN STUDIES

- JAPN 411: Food & Culture in Japan

BIOLOGY

- BIOL 211: Seafood Forensics

CURRICULUM FOR THE ENVIRONMENT & ECOLOGY

- ENEC 370: Agriculture & the Environment

ENGLISH/COMPARATIVE LITERATURE

- CMPL 255: The Feast in Philosophy, Film, and Fiction
- ENG 2018: Food Writing

FOOD STUDIES AT CAROLINA

GEOGRAPHY

- GEOG 232: Agriculture-Food-Society

HONORS

- EATS 101

LAW

- LAW 470 Agricultural/Food Law & Policy

PUBLIC HEALTH NUTRITION

- NUTR 240 Introduction to Human Nutrition
- NUTR 245 Sustainable Local Food Systems
- NUTR 696 Taxes, Bans, and Burgers: Directed Readings in Global Food Policy
- NUTR 875 Nutrition Policy Seminar

PUBLIC POLICY

- PLCY 475 Political Economy of Food

CAROLINA COOKS *carolina eats*

Professors
Marcie Cohen Ferris & Sharon P. Holland

Teaching Assistants
Victoria Bouloubasis & Katy Clune

Course Coordinator
Laura Fieselman

EXIT

CAROLINA COOKS
BORDER LANDS
carolina eats

Great-grandmother Betty's pound cake in Shelby, NC

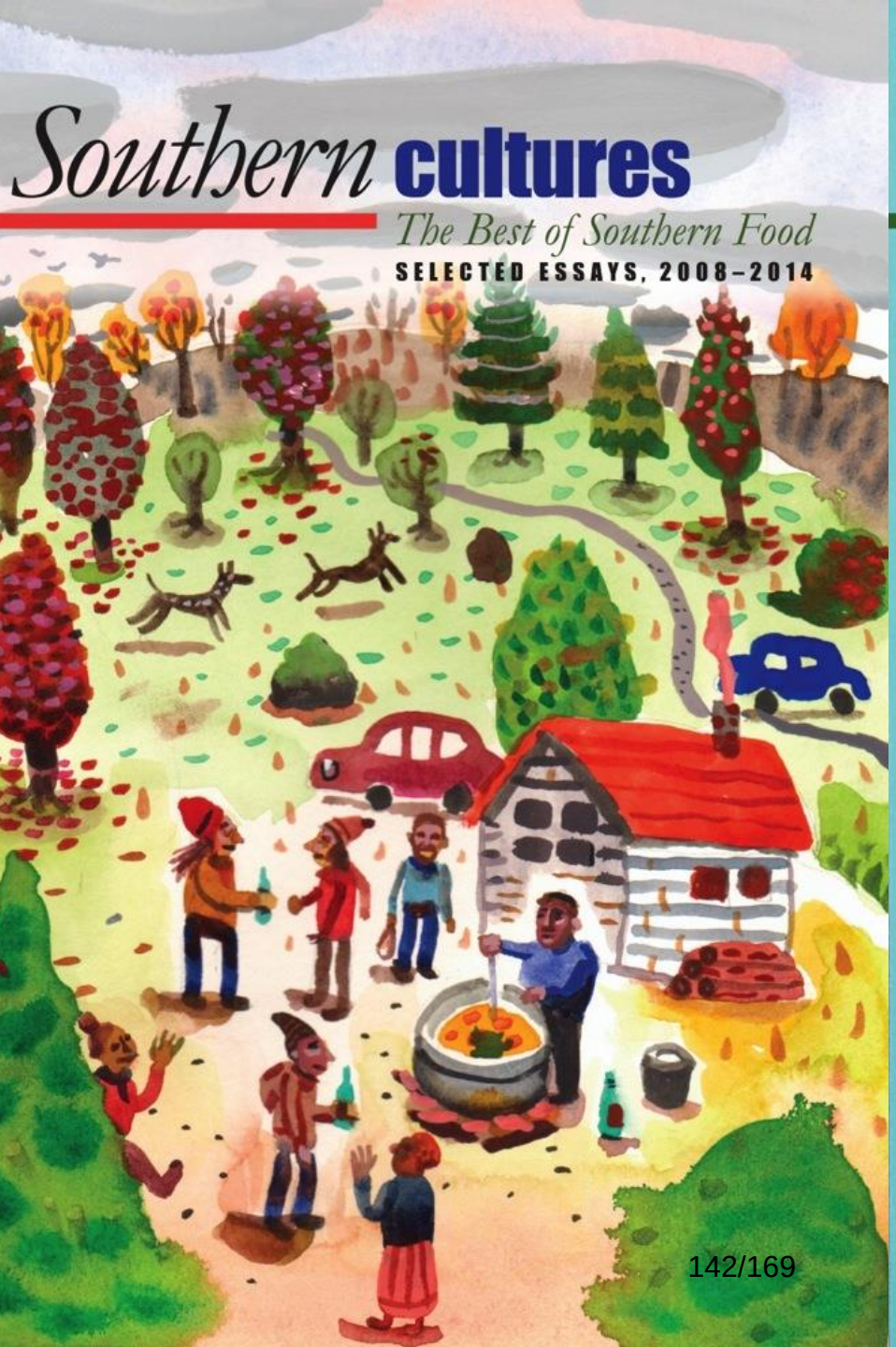
"My great-grandmother's name is Betty Wellmon. She is 86 years old and has lived in Shelby, NC her entire life! I just wanted to share how special this class's lessons were for me to better understand my connection to food. The video we watched in recitation about the art of cake baking in the South really resonated with me. (Southern Layer Cakes - New York Times) I'm visiting home this weekend and had the pleasure of spending the evening with my great-grandmother to learn more about her famous pound cake. Needless to say, I've really enjoyed the course, for helping me gain a better understanding of what I've taken for granted far too long!"

- Nicholas Hastings, class of 2017

Southern cultures

The Best of Southern Food

SELECTED ESSAYS, 2008–2014



Southern cultures
SPRING 2015

Food

Sara Camp Milam, Emily Wallace, Kate Medley

FOOD *and the* HUMANITIES

presented in 2015–2016 by the

INSTITUTE *for the* ARTS *and* HUMANITIES

Join us for mealtime conversations with UNC humanities faculty on topics related to the new pan-university research theme: "Food for All: Local and Global Perspectives." All events will be held in the University Room of Hyde Hall. Free of charge and open to faculty, staff, and students.

All events are free; some require advance registration.

For more details and to register, visit **iah.unc.edu/food-and-humanities**

Carolina Tasting Salon | Sep 17

Japanese Tea Gathering | Nov 20

Feast and Film: A Dinner Conversation | Dec 2

African Foodways in the American South | Feb 12

Setting the Table for a Discussion of Food and Labor | Mar 25

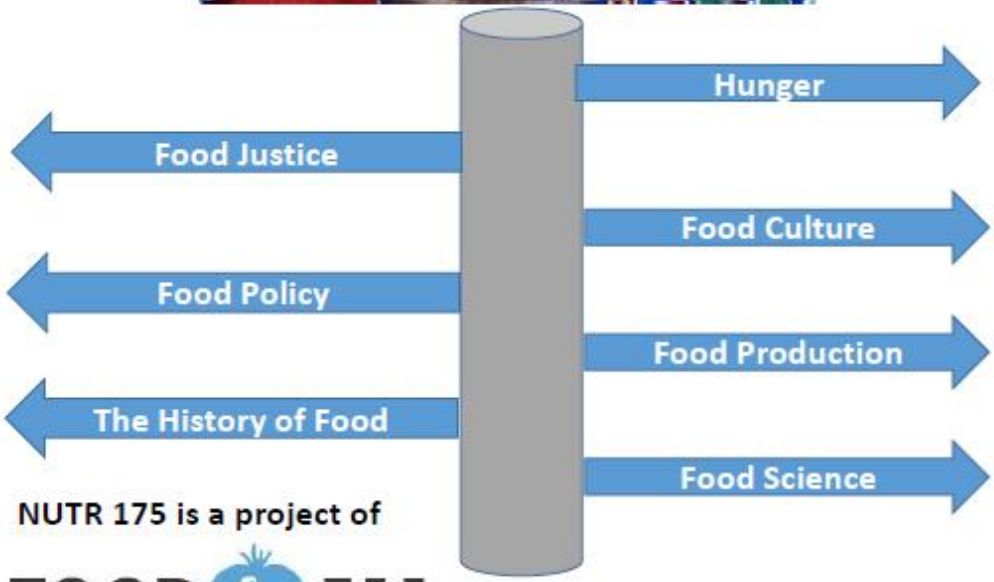
For more information on UNC-Chapel Hill's campus-wide 2015-2017 "Food for All" research theme, visit foodforall.web.unc.edu.

INSTITUTE *for the* ARTS *and* HUMANITIES

FOOD *for* ALL

THE UNIVERSITY *of* NORTH CAROLINA *at* CHAPEL HILL

Introduction to Food Studies: From Science to Society (3-credits) NUTR 175/ AMST 175/ ANTH 175-001



NUTR 175 is a project of

FOOD for ALL
LOCAL & GLOBAL PERSPECTIVES
UNC-CH Academic Theme, 2015-2017

Interested in Food but Not Sure Where to Begin?
Nutrition 175, a new multi-disciplinary course on food studies, will provide an overview of how individuals, communities, and societies produce, distribute, and eat food. Students will explore:

- how people ate prior to agriculture
- where, why and how farming and plant and animal domestication came about, as well as how the adoption of agriculture affected human health
- the interactions between food and culture
- food history in the South
- how food can be used as a political tool as well as how policies can transform our production and consumption of food
- the biology of food
- Food for health and wellness

NUTR 175, 3-credit
M/W/F Fall 2016 3:35-4:35
Location: 200 GSG
Counts for General Education Requirement, No Prerequisites
Faculty Instructors: Lindsey Smith Taillie, PhD Melinda Beck, PhD and guest speakers from across UNC departments, NC State, and the private sector
Questions: melinda_beck@med.unc.edu

This Semester UNC Entrepreneurship Classes Tackled the Food Theme with Gusto!

- **Econ 125 (Introduction to Entrepreneurship)**

  380 STUDENTS

- **Econ 325 (Entrepreneurship: Principles and Practice)**

  146 STUDENTS

The Food Theme Team and friends made “reverse pitches” to these classes – “pitching” the food-related problem to inspire them to generate solutions through social ventures. ALL class venture projects focused on food!

Introduction to Entrepreneurship
ECON 125

Food Waste- The Ugly Problem

6 billion pounds of *perfectly edible* fruits and vegetables are thrown away because of cosmetic imperfections [1]

- Unusual shapes
- Discoloration
- Scabbing

Social Impact

Food is being thrown away despite that 48.7 million Americans are without food[2]

Environmental Impact

A huge waste of resources:

-2.5% US energy budget lost[3]

-Enough water to fill Lake Erie[3]

-Contributes to 16% of methane gas emissions[4]

Economic Impact

Huge economic loss due to food waste-$165 billion dollars lost annually [5]

Ugly

Reduce food waste.
Embrace the ugly.

GreenBus

fresh produce for all

Ben Boyd | Jenny Mooney | Amanda Benninghof | Michael Baker

Transit grocery

We'll be there with the good food,
no matter where you go from there...

Founded by Alex Paré, Cole Del Charco, Luke Soliman and Reid Farber

NORTH CAROLINA FROZEN FRUITS AND VEGETABLES

Investing in North Carolina Farming: Farm to Freezer

Seal the Seasons is a local frozen produce company changing the way consumers support local farmers. We offer locally grown, locally frozen fruits and vegetables in NC grocery stores, allowing you to eat local, all year round.

Dissertation Research: Beth Hopping, PhD

Encouraging ***unprocessed, local food*** purchasing may be a novel strategy for ***improving dietary quality*** among ***rural, low-SES consumers***

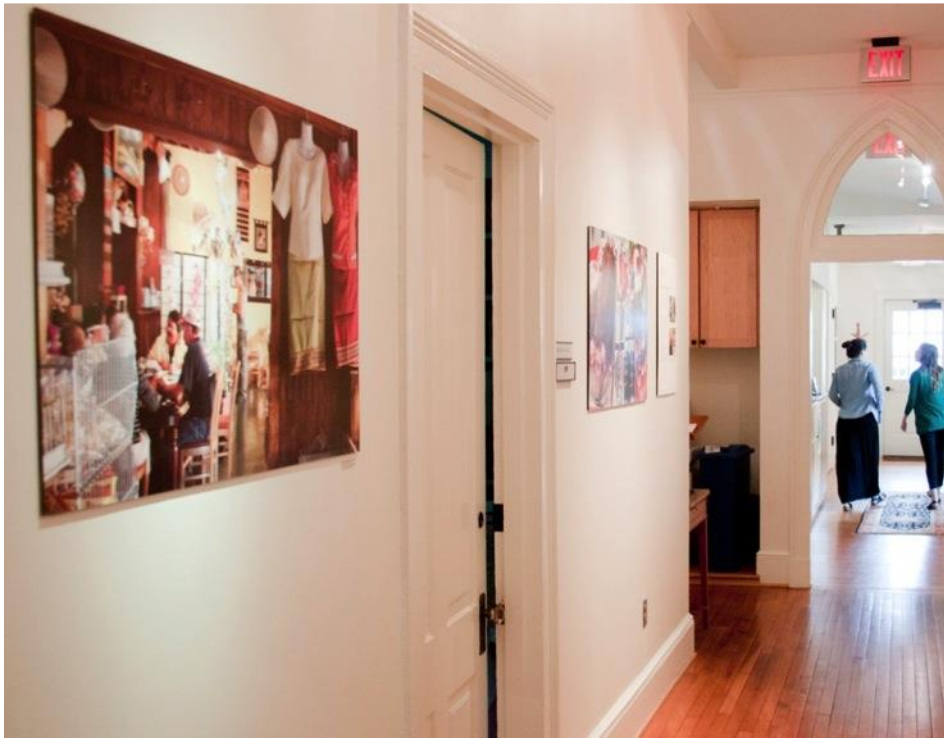
Project Overview

Development, implementation, and evaluation of interventions to increase ***healthy food purchasing*** through the promotion of ***local produce***

Local produce → **Grocery stores** → **Public health**

HOME IN A NEW PLACE
Making Laos in Morganton, NC

MA Thesis, Website, & Photo Show by
Katy Clune (Folklore, May 2015)


EXIT

ARTS & SCIENCES

rchives | Videos | College of Arts & Sciences | Subscribe

GIVE NOW

Search

HE NEW OLD NORTH STATE

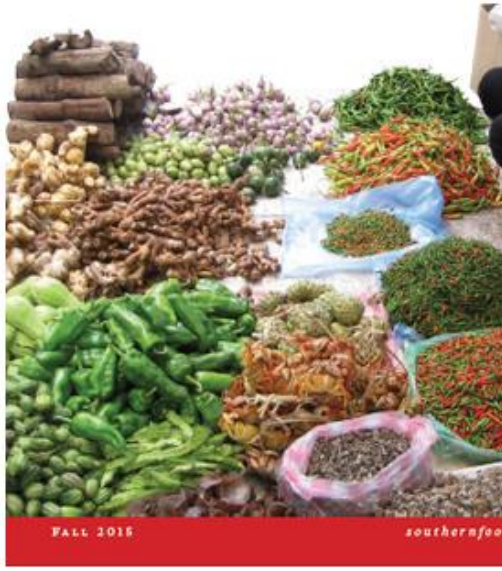
THE FRESH FACES, VOICES, AND IDEAS THAT ARE ENRICHING OUR CULTURE, MOUNTAINS TO COAST

TASTE
F LAOS IN
ORGANTON

TASTING LAOS IN THE NORTH CAROLINA MOUNTAINS

A gentle diplomacy of flavor

BY KATY CLUNE



FALL 2015

FOOD FOR ALL
Micro Grants

STUDENT GROUPS

FLO (Fair, Local Organic)

FoodFarmer Foodshare

Graduate Research & Intervention in the South

Nutrition Coalition

UNC Real Food Challenge

The Sonder Market

Thanksgiv(spr)ing

UNC DEPARTMENTS/SCHOOLS

American Studies

Anthropology

Campus Y

Family Medicine

Edible Campus

Government

History

Center for the Study of the American South

Office of Undergraduate Research

COMMUNITY

Caswell County Local Food Council

Child Nutrition/Henderson County Public Schools

Inter-Faith Council for Social Services

North Carolina State University

PORCH

FOOD FOR ALL
Micro Grants

FLO–co-sponsor speaker series to provide students information about food systems at Carolina

Nutrition Coalition–co-sponsor Food Day Event

Dept of History–co-sponsor Culinary Nationalism in Asia Conference

PORCH–provide healthy food for at-risk, low income children in Orange County

Real Food Challenge–regional training for student activist

Child Nutrition/Henderson County Public School–co-sponsor bus to provide meals to children

The Sonder Market–student cooking classes

Farmer Foodshare–community food assessment

Family Medicine–connecting healthcare workers and farmers for a healthier NC

Center for Environmental Farming Systems, NC State University–co-sponsor Farm to Fork Weekend event

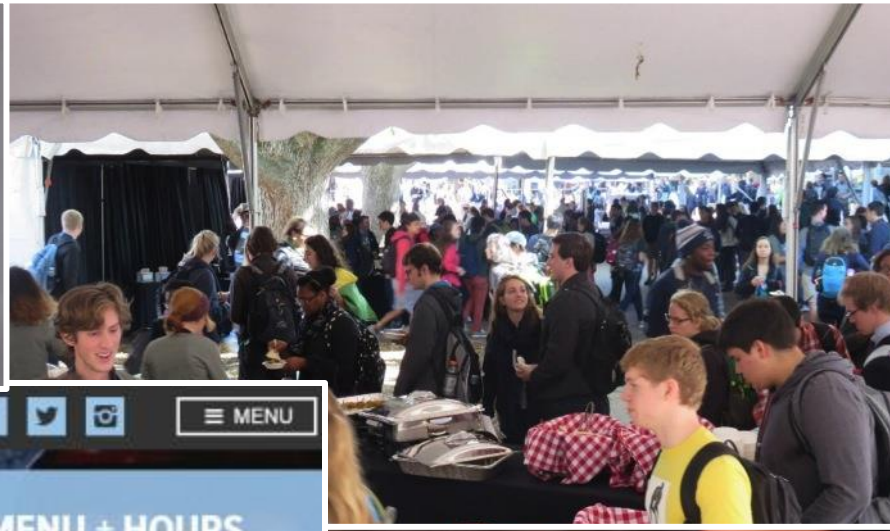
Inter-Faith Council for Social Service–Chapel Hill/Carrboro Food for Summer Program

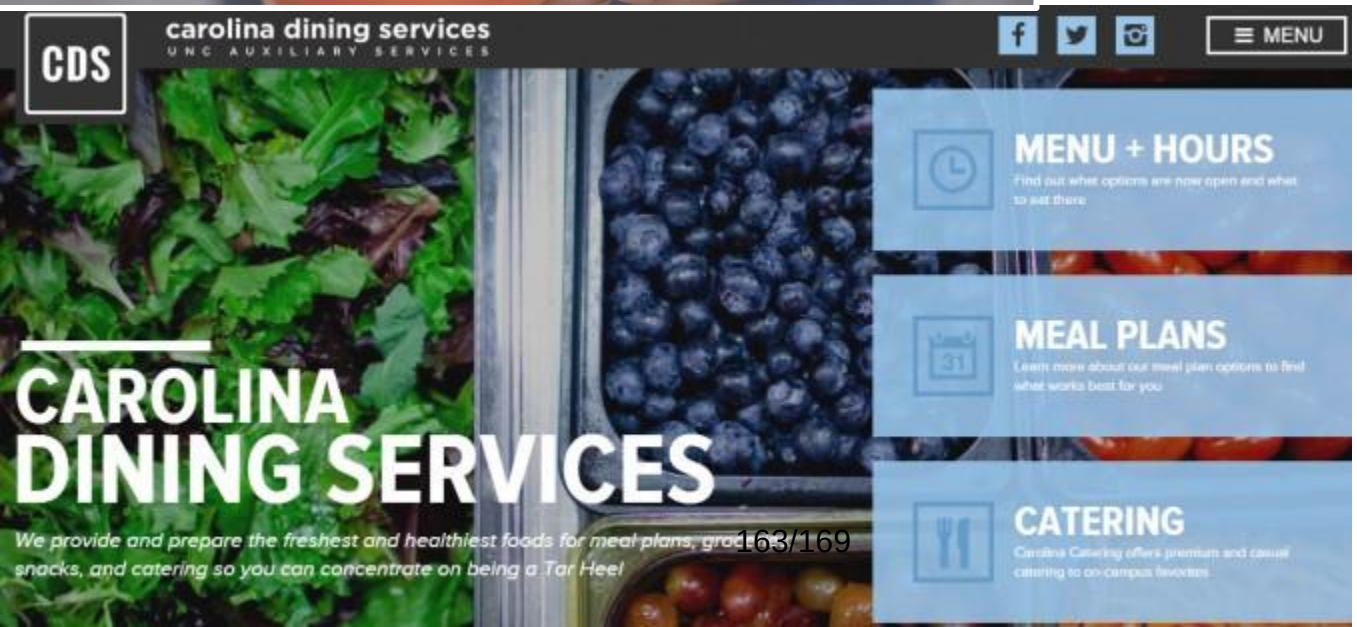
Edible Campus UNC

Carolina Campus Community Garden

Greek “Weed Dating” in the Garden

Carolina Dining Service





REAL FOOD CHALLENGE SIGNING
20% "REAL" food at CDS by 2020
April 26, 2016

What's in Store for Next Year?

- Fund new micro-grants
- Continue to support Edible Campus
- Implement Intro. to Food Studies Course
- Support Food Studies development and expansion
- Focus on Legacy Projects that will sustain the Food Theme going forward

Pilot Test a UNC CSA Project

- Deliver healthy local food to UNC employees
- Support local agriculture
- Provide nutrition education, teach cooking skills
- Improve health outcomes
- Build campus camaraderie

FARMER FOODSHARE

Carolina Food for All Initiative

FOOD for ALL

LOCAL & GLOBAL PERSPECTIVES

foodforAll.web.unc.edu

@UNCFoodforAll

@UNCFoodforAll

FoodforAll@unc.edu

Food for All Steering Committee

CO-CHAIRS

Alice Ammerman, Nutrition & Center for HPDP
Marcie Cohen Ferris, American Studies

Maureen Berner, School of Government
Randi Byrd, American Indian Center
Peter Coclanis, History & Global Research Institute
Amy Cooke, Environment & Ecology
Molly DeMarco, Nutrition & Center for HPDP
Elizabeth Engelhardt, American Studies
James Ferguson, Director, Global Food Program/Global Research Institute, EATS 101 Honors Course
Laura Fieselman, Social Innovation Imitative, Campus Y
Sharon Holland, American Studies
Christian Lentz, Geography
Claire Lorch, North Carolina Botanical Garden
Elizabeth Mayer-Davis, Nutrition
Scott Myers, Carolina Dining Services
Thomas Oatley, Political Science
Eliana Perrin, School of Medicine, Pediatrics
Jay Swaminathan, Kenan-Flagler Business School
Samantha Buckner Terhune, Global Food Program/Global Research Institute, EATS 101 Honors Course

STUDENT REPRESENTATIVES

Rossi Anastopoulo, Global Studies
Will Chapman, Nutrition
Christina Chauvenet, Maternal Child Health
Claire Hannapel, Food Systems
Beth Hopping, Nutrition
Anna Tang, Chemistry/Mathematics

COMMUNITY PARTNERS

Sarah Blacklin, NC Choices, CEFS/NCSU
Nancy Creamer, Center for Environmental Farming, NC State University
Betsy & Alex Hitt, Peregrine Farm. Graham, NC
Ricky Moore, Chef/Owner, Salt Box Restaurant, Durham, NC
Andrea Reusing, Chef/Owner, Lantern Restaurant, Chapel Hill, NC
Karen Stanley, NC DHHS
Mary Story, Duke Global Health Institute

ADMINISTRATIVE STAFF

Barry Ramsey, Office of the Executive Vice Chancellor & Provost

FOOD for ALL

THANK YOU!