

# Research Funding and Commercialization at UNC Chapel Hill: New Metrics



Photo by Sam Kittner

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UNC  
RESEARCH

# Tracking Innovation: North Carolina Innovation Index 2013



## IMPLICATIONS AND PRIORITIES

### Research & Development:

*North Carolina excels at academic research & development, but the total level of the state's research & development, particularly that performed by business, is insufficient to fuel and sustain strong economic growth.*

### Commercialization:

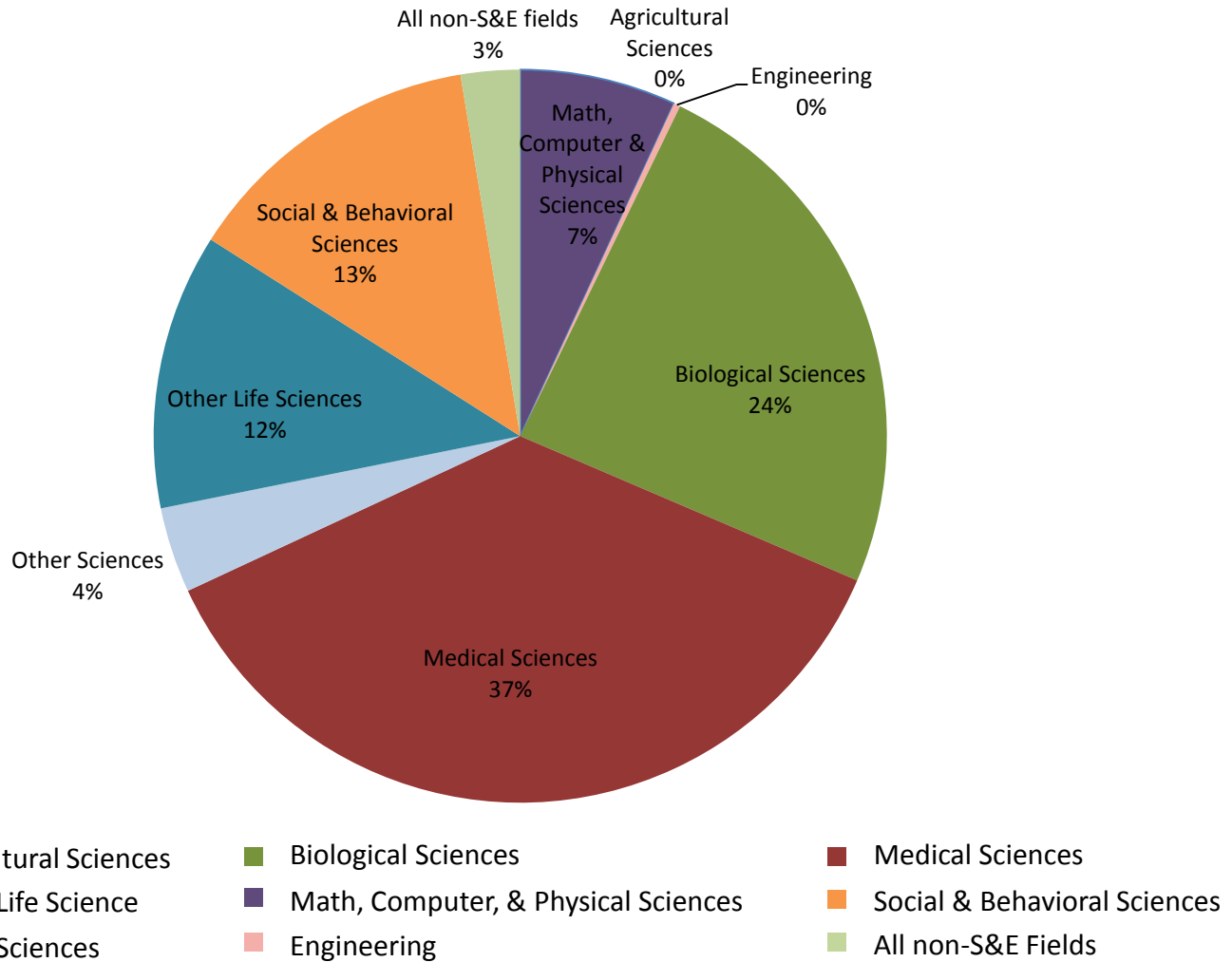
*North Carolina organizations, particularly its academic institutions, generate significant intellectual property, but the level of the state's commercialization activities must be stronger to realize the full economic and social benefits of that intellectual property.*

([http://www.nccommerce.com/Portals/6/Documents/Resources/TI\\_NC\\_2013\\_Report.pdf](http://www.nccommerce.com/Portals/6/Documents/Resources/TI_NC_2013_Report.pdf), p. 1)



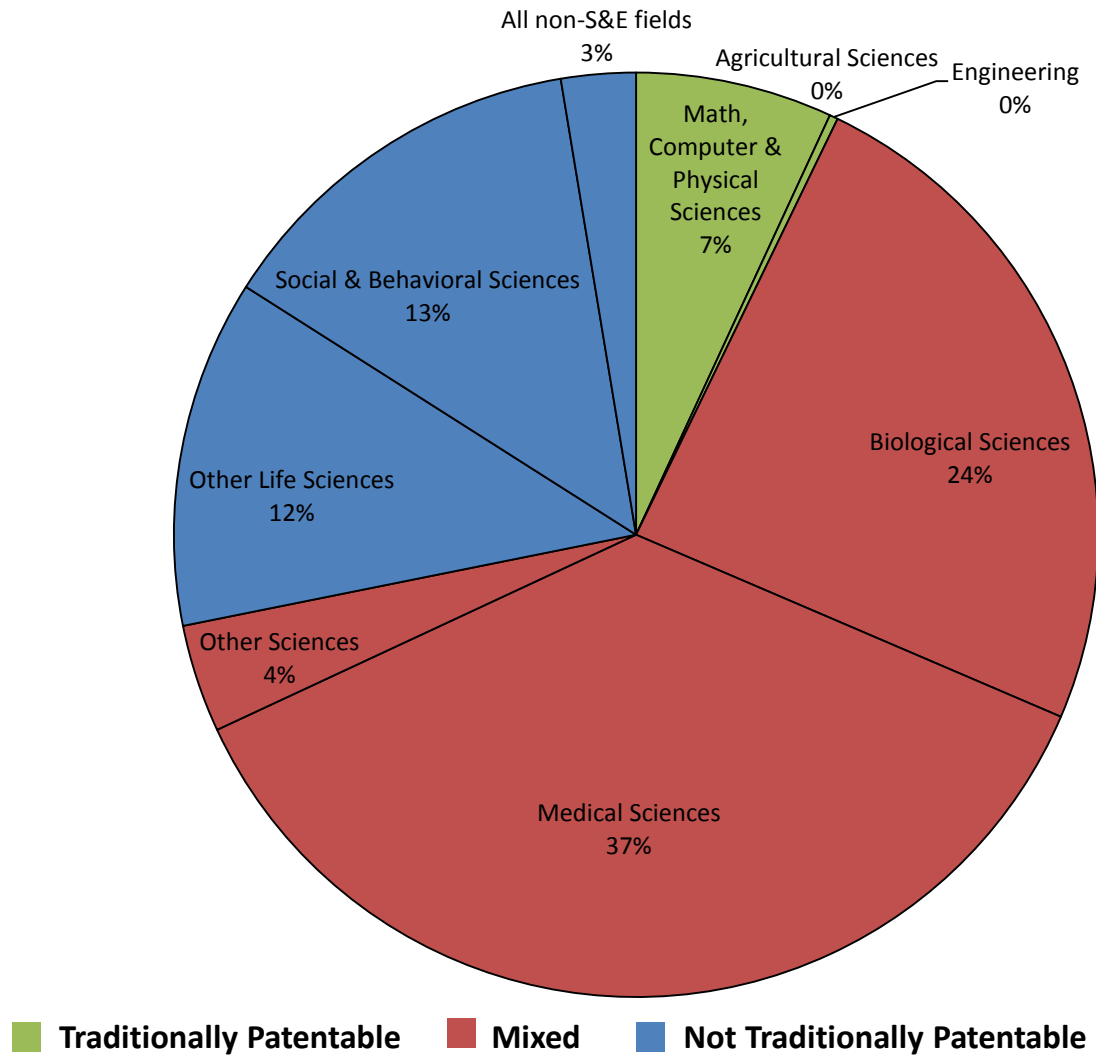
# Character of UNC Chapel Hill Research

Organization of Research Efforts: UNC Chapel Hill  
FY11 R&D \$869,174



# Research Portfolios Have Different Commercialization Opportunities

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# Research at UNC Chapel Hill Has Broad Impacts

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A few examples:

Traumatic brain injury

HIV prevention

Storm surge modeling

Bio (disease) surveillance

Solar energy

Obesity





# Research Portfolios Have Different Commercialization Opportunities

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R&D disciplines consistently producing **traditionally patentable IP** (FY11, \$millions)

	UNC-CH	NCSU	Duke
<b>Traditionally Patentable (FY11, \$millions)</b>	<b>\$62.427</b>	<b>\$247.538</b>	<b>\$92.068</b>
Engineering	2.545	113.678	56.074
Agricultural Science	0	86.820	0
Physical Science, Math, Computer Science	59.882	47.040	35.994



# Research Portfolios Have Different Commercialization Opportunities

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R&D disciplines that are **mixed: they can produce patentable IP**, but also offer other valuable impacts (FY11, \$millions)

	UNC-CH	NCSU	Duke
<b>Mixed</b>	<b>\$561.983</b>	<b>\$99.363</b>	<b>\$862.889</b>
Medical Science	318.310	0	594.380
Biological Science	210.864	80.767	238.561
Other Science	32.809	18.596	29.948



# Research Portfolios Have Different Commercialization Opportunities

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R&D disciplines that can **rarely produce patentable IP**  
(FY11, \$millions)

	UNC-CH	NCSU	Duke
<b>Not Traditionally Patentable</b>	<b>\$244.764</b>	<b>\$30.180</b>	<b>\$76.250</b>
Social and Behavioral Science	116.317	13.147	44.482
Other Life Science	105.772	13.325	27.802
Non S&E Fields	22.675	3.708	3.966



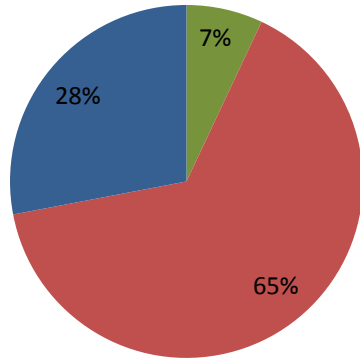


# Research Portfolios Have Different Commercialization Opportunities

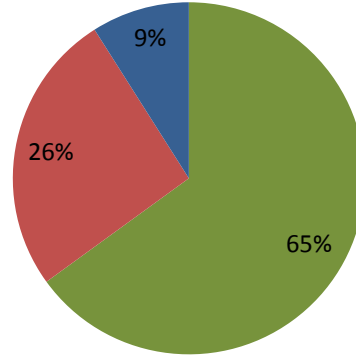
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## Differences in Portfolio Composition

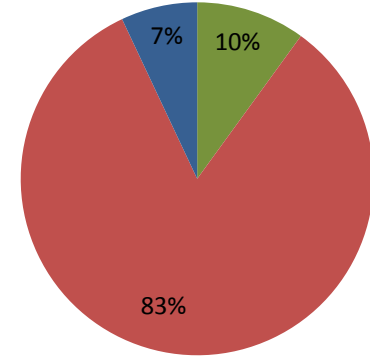
UNC-Chapel Hill



NC State



Duke



■ Traditionally Patentable

■ Mixed

■ Not Traditionally Patentable



# Metrics Reflecting Research Portfolio Mix

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Per \$100M in **traditionally patentable and mixed R&D** (FY11)

	UNC-CH	NCSU	Duke
Invention Disclosures	23	48	26
Total US Patents Filed	20	26	28
US Patents Issued	5	15	5



# Metrics Reflecting Research Portfolio Mix

Per \$100M in **traditionally patentable R&D** (FY11)

	UNC-CH	NCSU	Duke
Invention Disclosures	228	67	275
Total US Patents Filed	199	36	288
US Patents Issued	53	21	56



# Research Funding and Commercialization: Conclusion

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- External funding: \$2.3B of research funding to Triangle universities
- Understanding the differences and complements among these institutions will enhance capacity to intensify commercialization opportunities and performance across the region.
- UNC Chapel Hill comparable to other Triangle universities when account is taken of its unique research portfolio
- UNC Chapel Hill's broad-focused research portfolio is providing unique benefits to the state, region, and global marketplace.

