

What is research and how is knowledge advanced?

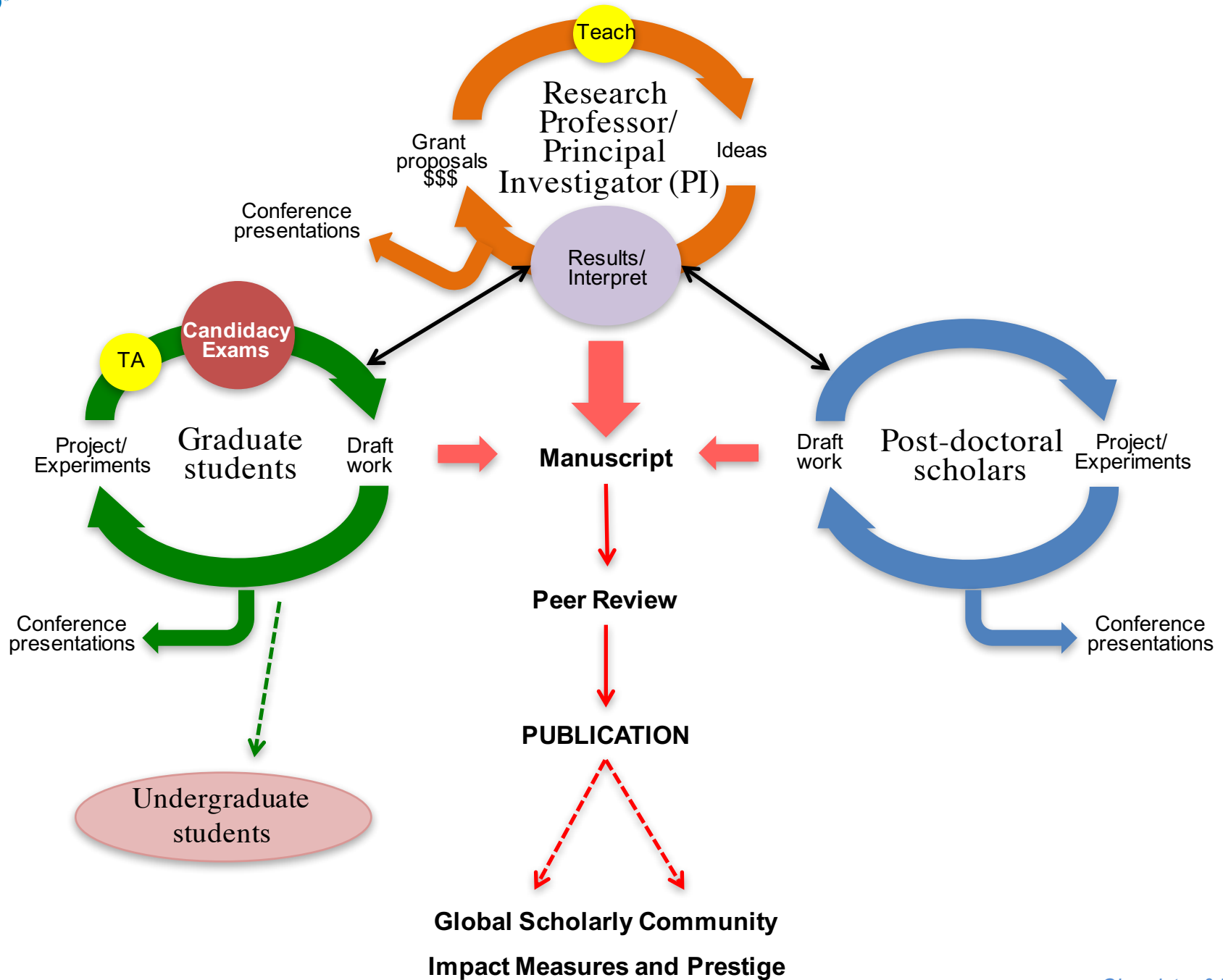


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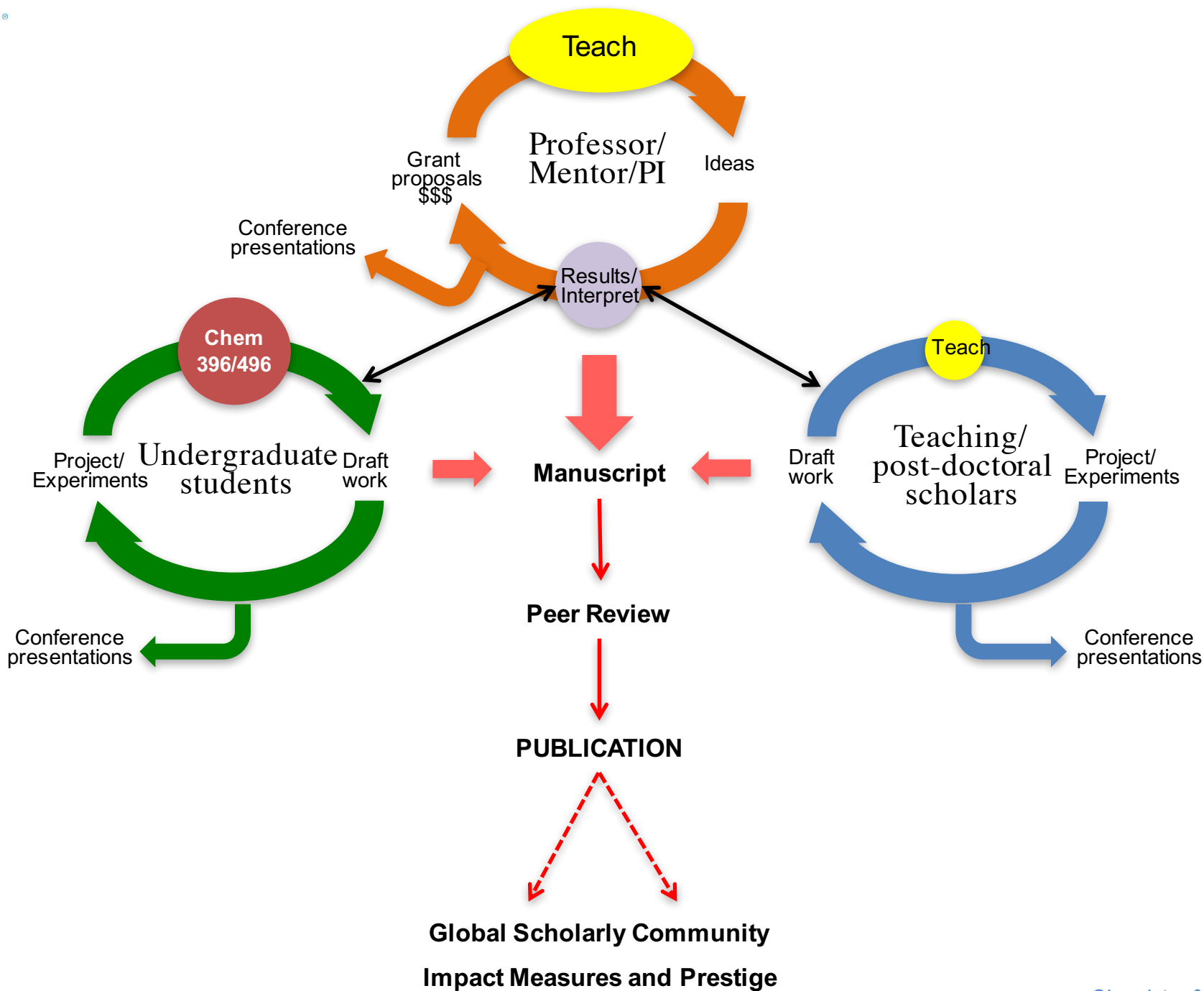
- *Research: performing a **methodical** study in order to test a hypothesis or answer a specific question.*
- *Research leads to the **creation** of new knowledge.*



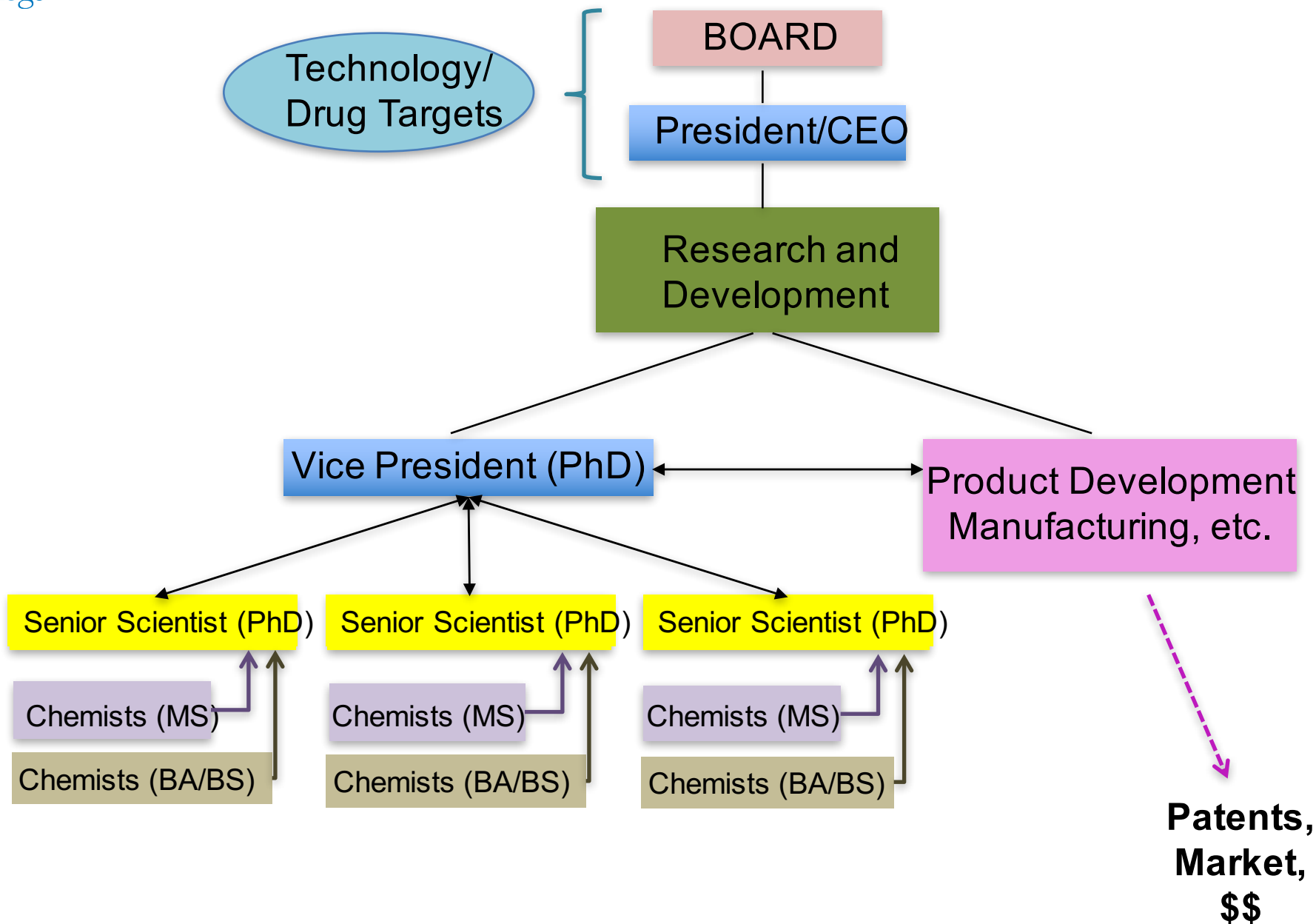
Research Cycle at Research 1 (R01) Academic Institutions



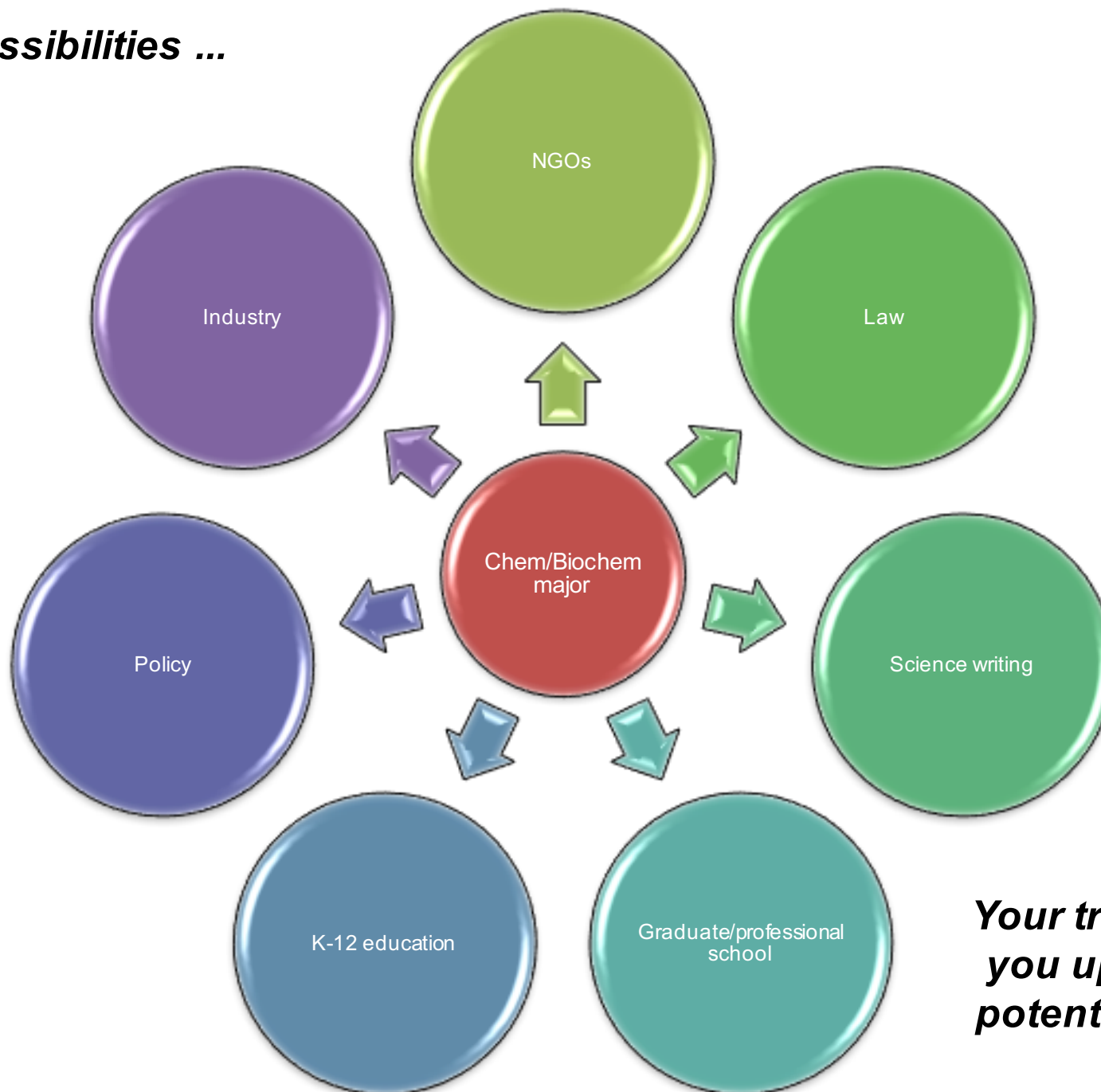
Research Cycle at Primarily Undergraduate Academic Institutions (PUI)



Research Cycle in Industrial Setting (Company)



Possibilities ...



***Your training sets
you up for these
potential careers.***

What do you need in your toolkit?

① Process of Science Skills

Develop a hypothesis, design & conduct appropriate experiments.

Analyze & interpret data using appropriate quantitative modeling & simulation tools.

② Communication & Comprehension of Science Skills

Access, assess & use available information.

Present scientific data in an appropriate context and in a variety of formats to peer & layperson audiences.

③ Community of Practice Aspects of Science

Appreciate the opportunities for interdisciplinary collaboration & the ethical dimensions of science.

Work safely independently & in an effective team.

