

# Translational Immunology



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# Disclosures

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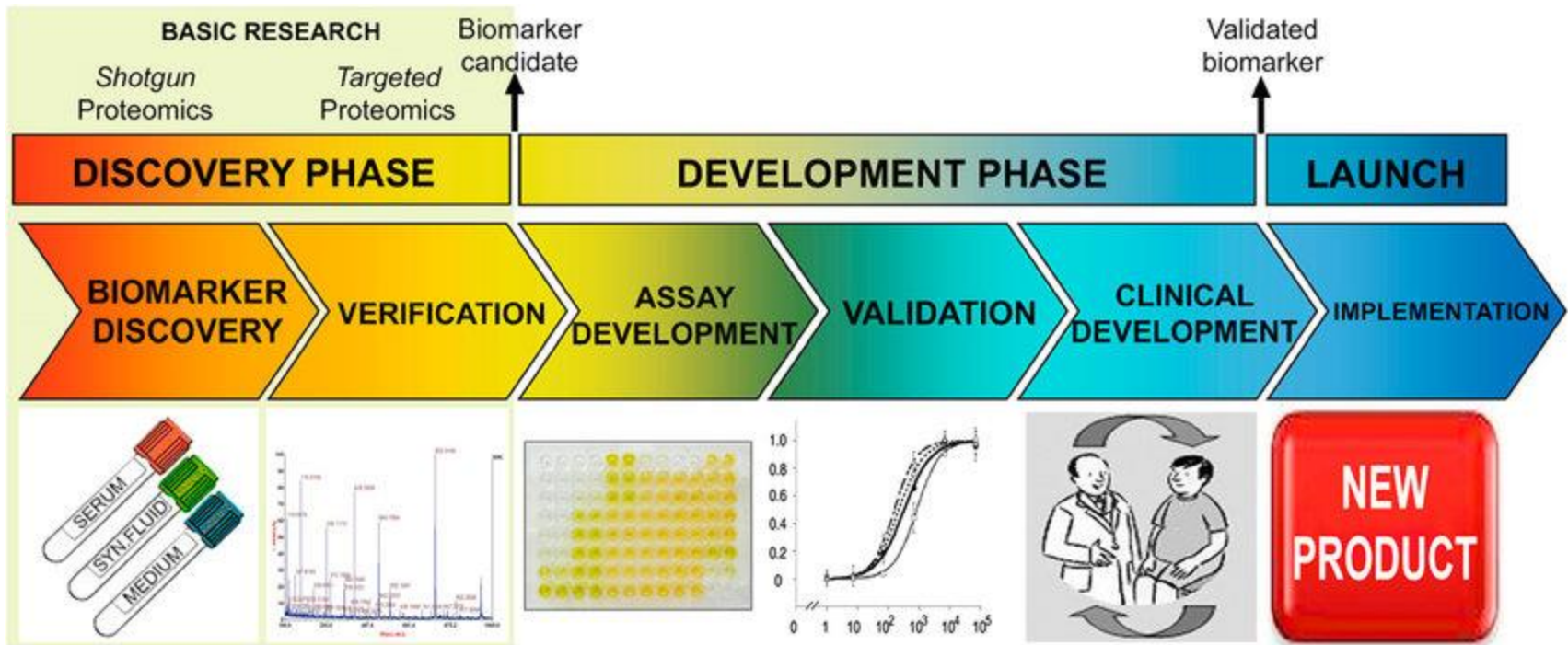
- NIH: NIAMS, NIA, NHLBI
- Rheumatology Research Foundation
- Arthritis Foundation
- Member, FDA Arthritis Advisory Committee
- Research grants: Amgen, CorEvitas, Janssen, Novartis
- UpToDate royalties
- American College of Rheumatology Honorarium (A&R)
- No personal financial relationship with any pharmaceutical company

# VERITY Translational Q&A

- Common goals of translational immunology research
  - Biomarker discovery and validation
  - Biologic insights

Key challenge: Tension between hypothesis driven research and discovery.

# Biomarker Study Designs

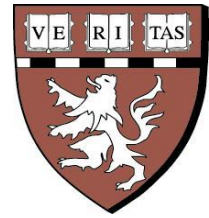


Biomarker studies encompass many different steps, with many different study designs, and complicated clinical science.

# Common pitfalls

- Biomarkers...
  - What's the goal
  - Discovery vs development vs validation
  - Measuring incremental value of new biomarker
- Poor clinical science design
- No accounting for important clinical variables:
  - Treatment
  - Disease activity
  - Disease duration





# Thanks

