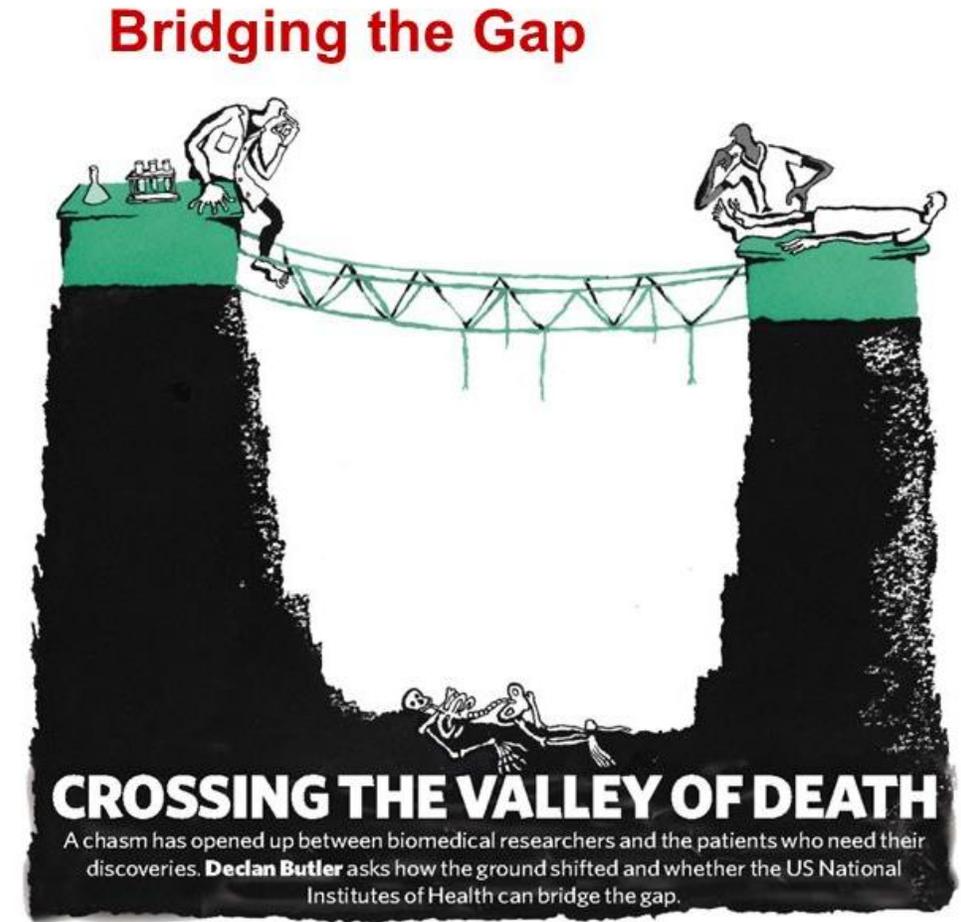


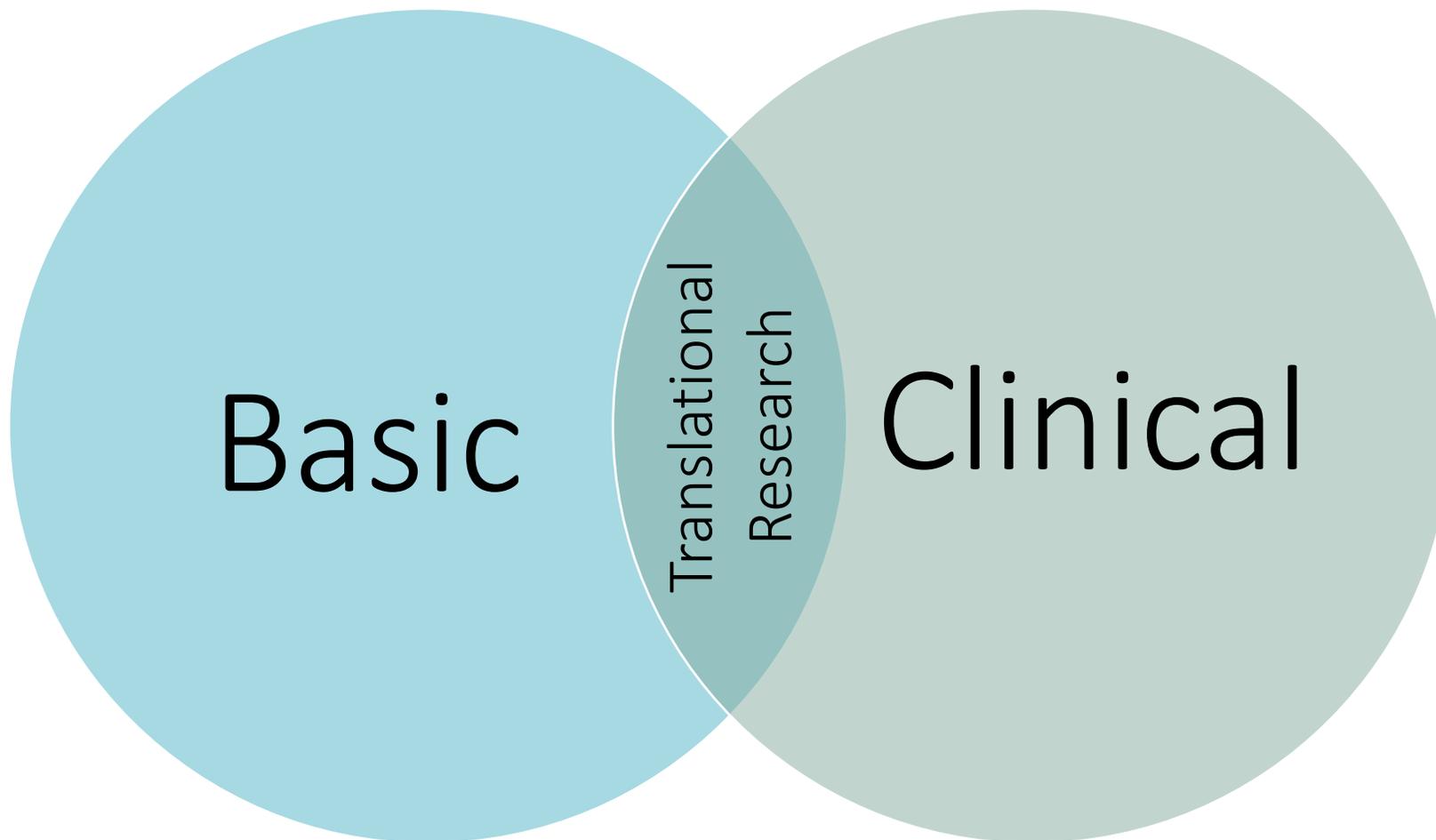
Smashing the Silo: Tips for Effective Collaborations between Basic & Clinical Scientists

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Why does a divide exist between basic and clinical research?

- In 1950-60's, most research was performed by physician-scientists
- Explosion of molecular biology in the 1970's revolutionized research creating a divide between clinical & basic research
- “Translational research” term first appeared in Pubmed in 1993 in publications on BRCA1 and other cancer genes





Basic

Translational
Research

Clinical

Basic

Translational
Research

Clinical

- Basic science experimental expertise & assay development
- More time to devote to grants/manuscripts
- Flexibility
- Managing day-to-day experiments

- Frame research questions in a clinically impactful manner
- Clinical samples
- An understanding of the regulatory framework for human participants research

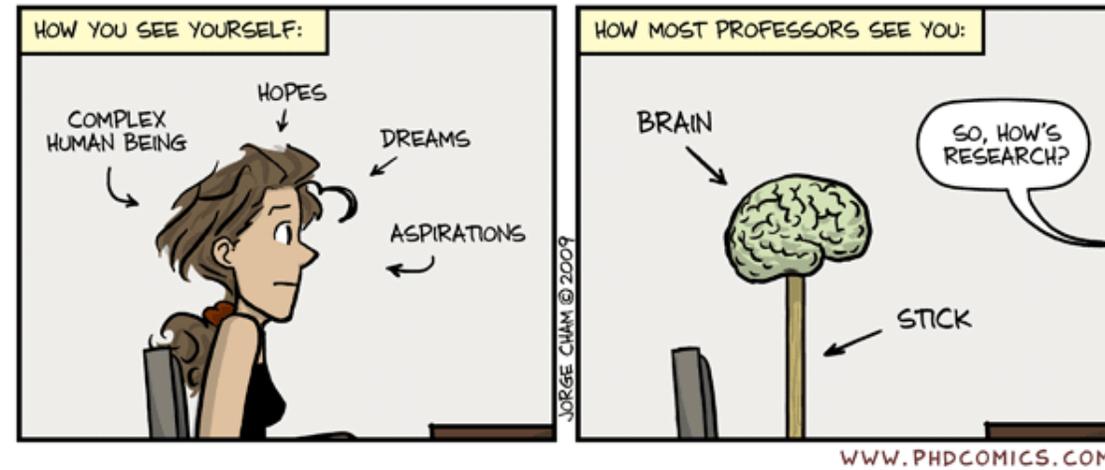
Different Cultures But Similar Goals

- Rapid decision when all info isn't available vs. through evaluation of the data before judgement
- Adherence to accepted methods of diagnosis & therapy vs challenging paradigms
- Respect for hierarchical authority vs challenging authority
- Mistakes carry much greater weight in the clinic compared to the lab where breakthroughs can be made from mistakes/errors
- Time starved vs financially starved
- Inflexible schedule vs flexibility
- Formal vs informal



Common Misperceptions of the “Other Side”

- Superiority complex
- Impatient
- Conservative
- Liberal
- Skeptical & overly reluctant, indecisive
- Clueless regarding clinical relevance
- Dismissive of single clinical observations
- I’m just a set of hands



Case Study

Dr. S's Perspective

- PhD bench scientist, has been on faculty for 12 years
- Past history of funding but struggling to get grants in past couple of years
- Encouraged by departmental leaders to find MD collaborators and do more translational research in order to get funded
- Open to idea but doesn't have a lot of experience collaborating with MDs; they tend to be loud, talkative, and assume everyone else understands all the acronyms they use
- At a research event, meets Dr. B, MD, clinician investigator – find mutual research interests and complementary skills – decide to collaborate on writing a grant
- Grant gets funded and project begins
- At the beginning, everything seems easy – Dr. B is talkative but kind and enthusiastic about collaboration
- Because of Dr. S's expertise, he has to do much of the early research but they have weekly to bi-weekly check-in meetings
- Just as the part of the research that Dr. B can be more involved in is about to begin, Dr. B is forced to take on more clinical work and becomes much more unavailable – their communication starts to be more by email and their check-in meetings become quite infrequent
- Dr. S is anxious to keep the project going and be able to publish results, but it doesn't seem that Dr. B shares the same priorities. When Dr. S shares his concerns, Dr. B snaps back that she doesn't have the luxury of time that he does, and that he should be able to continue to move the project forward. She seems to think that overseeing the final stages of the research should be sufficient since simply having her, an MD, on the project should help it get published.

Dr. B's Perspective

- Dr. B is a physician scientist who has been on faculty for 8 years
- Had a K award and has been trying to launch her career as an independent researcher; has had some protected time but now losing that protection unless she can secure external grant funding
- Enthusiastic about opportunity to collaborate with Dr. S, bench scientist, though she never has had an interdisciplinary research collaboration before
- Dr. S has a lot of demands on her time and a growing pressure of taking on more clinical work, which would make it nearly impossible for her to have a successful research career
- As collaboration begins she feels belittled by Dr. S, whose expertise is at the center of their work. He also seems to have endless amounts of time to dedicate to the research, whereas she has constantly competing priorities of home and work, and clinical and research work at work.
- Their weekly meetings start to feel like a waste of time with Dr. S lecturing her about everything he is doing, with little room for her thoughts on the project, so she tries to decrease their frequency
- Suddenly, just as her clinical obligations are increasing, Dr. S sends her angry emails about not doing enough to contribute to their project and for the slow progress they are making
- Dr. S wants to see their project be successful but feels overwhelmed by everything else on her plate that seems more time sensitive. She is hurt and frustrated by the way Dr. S is approaching their collaboration.

Questions

What do you see as the major barriers to an effective collaboration between Dr. B and Dr. S?

What could they have done differently from the beginning of their relationship to have better set the stage for an effective collaboration?

What can they do at this point to salvage the collaboration?

How to Find Collaborators

- Grand Rounds Talks
- Conferences
- Seminars
- Match-making through senior mentors
- Networking events
- BU profiles
- Reaching out to leaders in the department



Effective Collaboration Requires

- Trust
- A shared vision/goal
- Defined roles & responsibilities
- Clear communication
- Common language
- Setting expectations
- What data and how it will be shared
- Sharing credit- define authorship

When Meeting in Person is a Challenge- Get Creative

- Document sharing

Google Docs, Microsoft Office Online, SharePoint, Zoho docs, Slack

- Instant messaging

- Web-based screen sharing

Webex, GoToMeeting, Zoom, Adobe Connect



Why should you collaborate with the “other side”?

- New perspectives
- Multi-PI NIH grants
- Innovation
- Greater impact
- Rewarding

