

Session #2

**Thinking outside the box:  
Building an MD-PhD program from scratch**

**Roberta Bernstein**

University of Illinois at Chicago

**Skip Brass**

University of Pennsylvania

**Dianna Milewicz**

University of Texas Houston

definition

## MD-PhD program

A unified program designed to train physician-investigators who are  
**true chimeras**

*Chimera (genetics), a single animal organism with genetically distinct cells from two different zygotes.*

*Greek mythology, the Chimera was a monstrous creature of Lycia in Asia Minor, composed of the parts of multiple animals.*

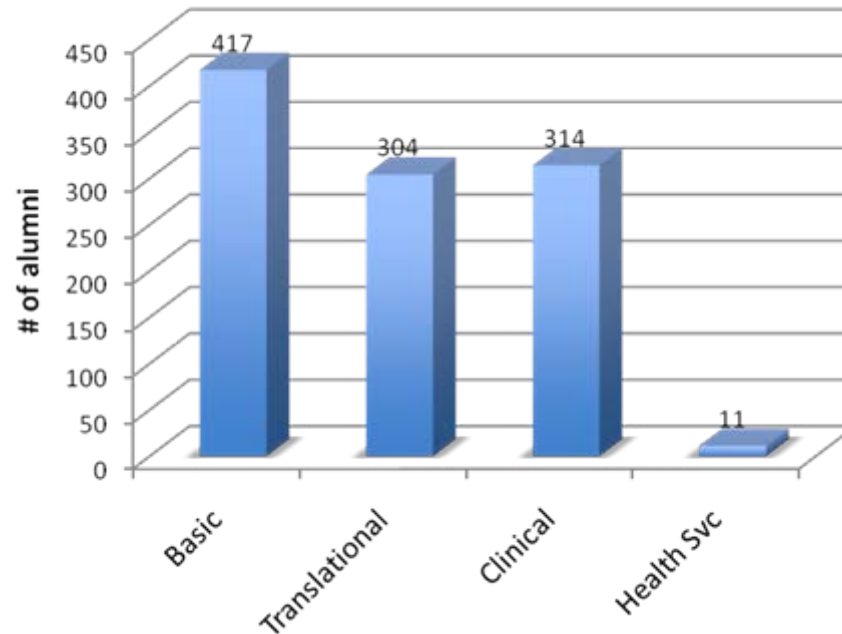
*A reasonably contented, exceedingly well-trained physician and scientist who fuses together the best parts of both.*

- Wikipedia

definition

# MD-PhD program

A unified program designed to train physician-investigators who will likely do many kinds of research



## **MD-PhD programs: the “cool ideas” survey:**

1. Are you using a training sequence other than the usual 2+4+2?
2. What are you doing now that you weren't doing 10 years ago?
3. What are you doing that you think is especially cool?
4. If you could change something, what would you do?
5. What do you think are the ways in which we currently fall short in our efforts to train future physician-scientists in MD-PhD programs?
6. What do you see as the challenges for the future for MD-PhD programs nationwide?
7. Are you doing anything to tie your MD-PhD program to postgraduate physician/scientist residency programs at your institution?

## **Themes that emerged**

1. Program integration - ways to unify the MD and PhD curricula.
2. Most programs use the standard 2+4+2 sequence, but blend things together whenever possible.
3. Many are experimenting with new ideas.
4. Clinical experiences before and during graduate school.
5. Enhancements to the M1/M2 curriculum - designed to keep our students thinking.
6. Exposure to skills needed for translational and patient oriented research.

## **Session #2**

### **Cool ideas to take home**

Myles Akabas (Albert Einstein College of Medicine)

Kerry O'Banion (University of Rochester)

Sandra Lee (Northwestern University)

Clayton Wiley (University of Pittsburgh)

Perry Halushka (Medical College of South Carolina)

Dianna Milewicz (University of Texas Houston)

### **What do MSTP reviewers look for?**

Olaf Andersen (Weill Cornell College of Medicine)

Robin Lorenz (University of Alabama Birmingham)

Arthur Gutierrez-Hartmann (University of Colorado)

David Engman (Northwestern University)

### **6 Years and out: doing it well while doing it faster**

Skip Brass (University of Pennsylvania)

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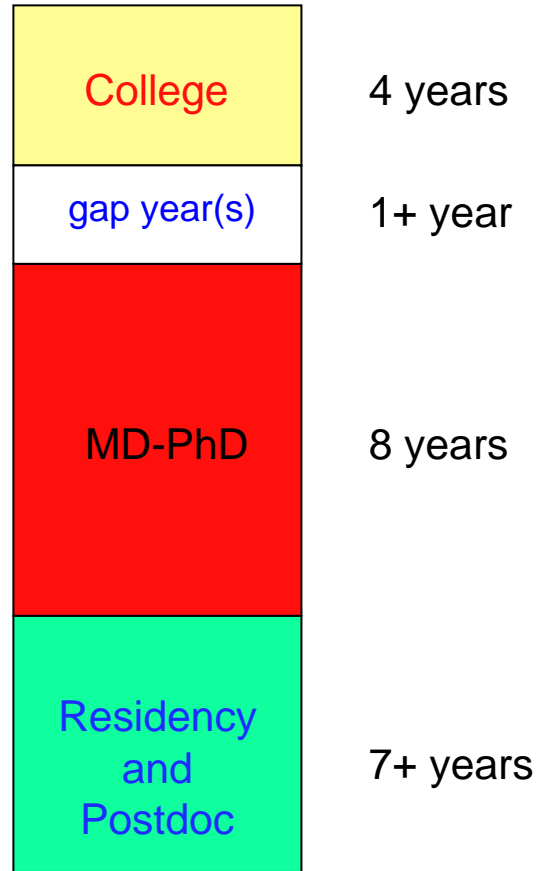
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### **6 years and out: doing it well while doing it faster**

Skip Brass (University of Pennsylvania)

18ish



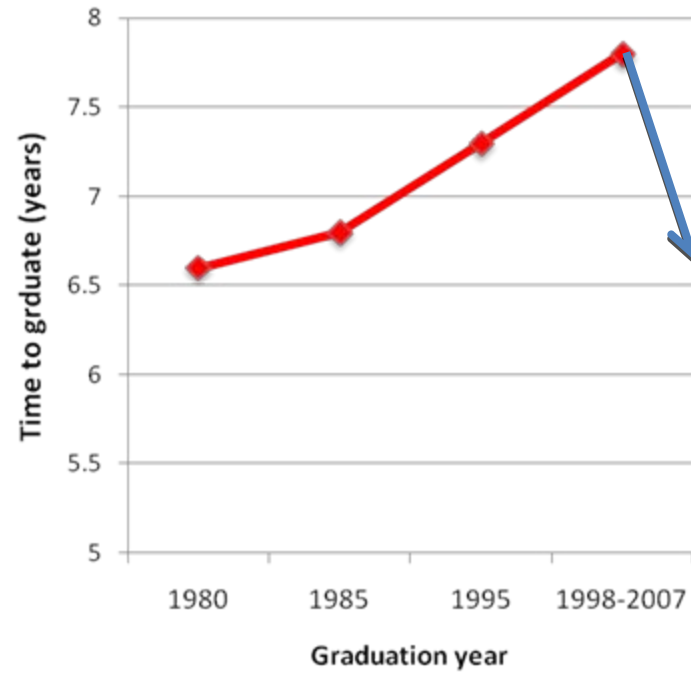
38ish

Age at first faculty appointment and first R01: elderly

# Trends

## Time to graduation

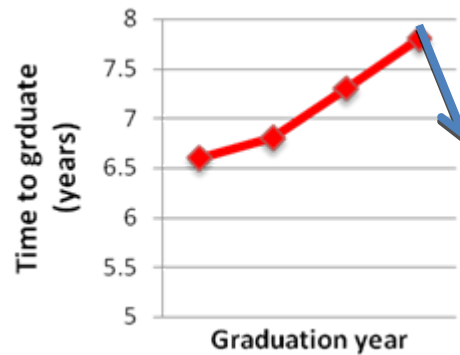
1980, 1985 & 1995 data from the NIGMS MSTP study  
1998-2007 data: weighted average from this study



# A modest proposal:

**6 years and out**

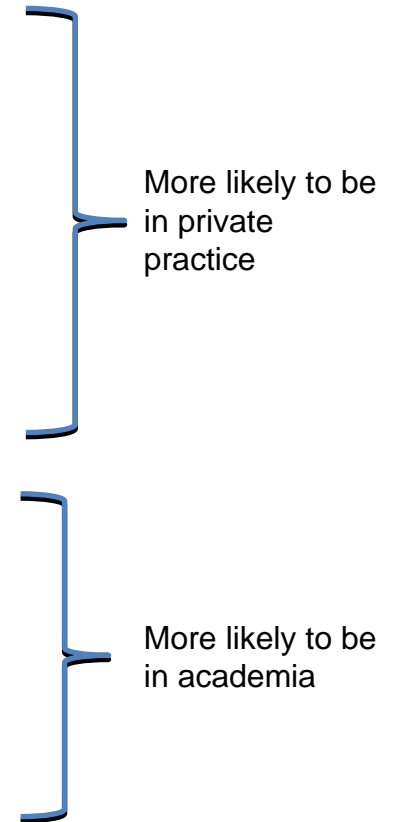
$$\begin{array}{ccccc} \text{MD} & & \text{PhD} & & \text{MD-PhD} \\ 3 \text{ years} & + & 4 \text{ years} & = & 6 \text{ years} \end{array}$$



# Residency choice as a predictor of outcome

364

1498



**The End**