

Medical Physics Residency Training and Pathways U.S. Perspective CAMPEP Symposium

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Outline

- Introduction
- Pathways
- Expectations
- Research



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It is ALL about Patient Care

- Ultimately, the result of our work, regardless of whether we do research, provide education or provide clinical service is the best possible patient care



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Quality Patient Care

- Quality patient care is provided by competent medical physicists.
- Competency is demonstrated by
 - Physics fundamentals
 - Didactic Medical Physics (AAPM Report 197)
 - Clinical Medical Physics (AAPM Report 90)
 - Board Certification (Licensure)
- =AAPM Qualified Medical Physicist (QMP)



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Medical Physicist Residency

- A balanced and thorough education for clinical medical physics education is essential
- Accreditation and standards are critical
- Balancing act
 - Didactic Education
 - Clinical training
 - Research
 -



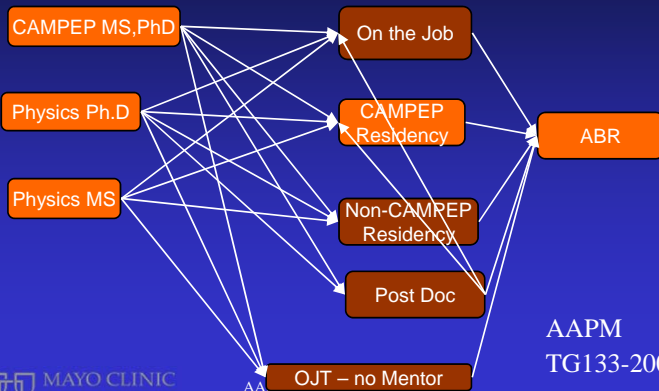
Training Pathway is SIMPLE?

- Graduate Degree
- Clinical Training in Medical Physics
- Board Certification Exam



The "Old" Pathway(s)

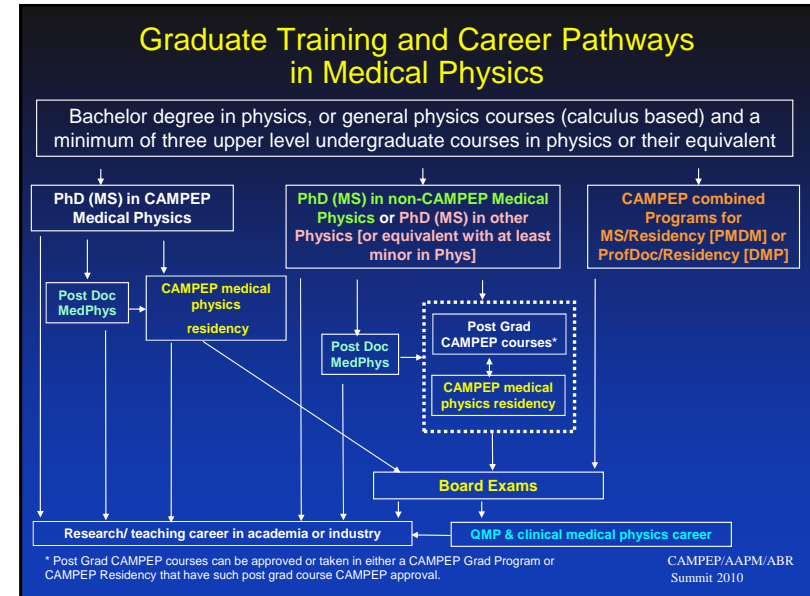
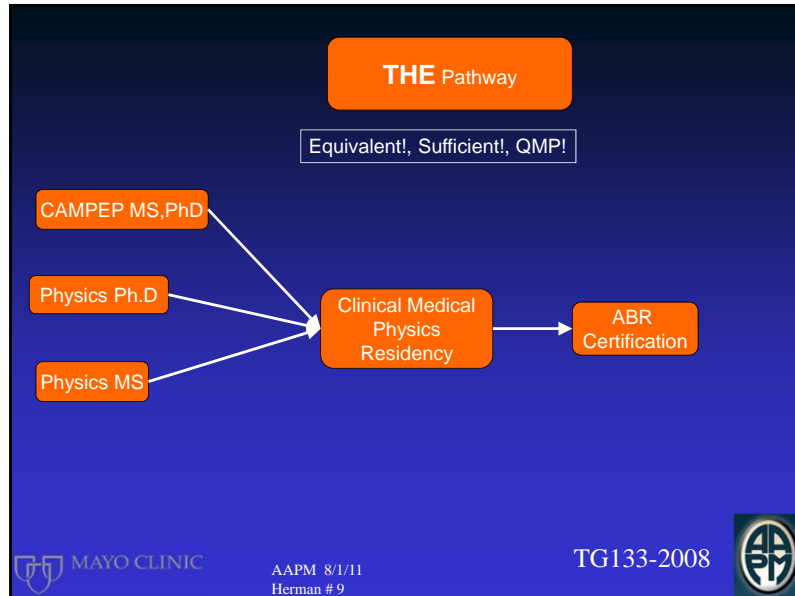
Consistent?, Equivalent?, Sufficient?, QMP? Best Patient Care?



2012/2014 Initiative AAPM, CAMPEP, ABR, ACR, ACMP

- Toward Consistency in Training
- Meet ABR requirements for education and training. (+AAPM PP-19A - 2007)
- Responding to ABMS, aligns with CARE Bill.
- ABR Exam Entrance Requirements
- In 2012 - CAMPEP-accredited graduate degree program or residency required
- In 2014 - CAMPEP-accredited residency required





Residency Requirements

- Complete structured didactic components as described in Report 197 – Graduate degree
- Obtain competencies in clinical practice as described in Report 90, during a minimum of 24 months of dedicated clinical training.

Residency Models

- CAMPEP all the way through
 - MS or Ph.D. CAMPEP accredited
 - Residency CAMPEP accredited
- Alternatives (see TG 133)
 - Affiliations e.g. Converted On the Job Training
 - Dependent - One program with satellites
 - Limited – Each program accredited
 - Doctor of Medical Physics degree
 - Hybrid: Non CAMPEP degree with CAMPEP residency – now defined from revision of WG44

Professional Doctorate in Medical Physics - DMP

- Professional Degree not a Research Degree
- Combines Didactic and Clinical Training
- More than a MS Degree + Clinical Physics Residency , >4 years
- Possible Clinical Training Off Campus
- Students Pay Tuition throughout Program

Charley Coffey, Vanderbilt



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Non CAMPEP Grad Degree

- Six 3 credit courses
 - Radiological Physics and Dosimetry
 - Radiation Protection and Radiation Safety
 - Fundamentals of Imaging in Medicine
 - Radiobiology
 - Anatomy and Physiology
 - Radiation Therapy Physics
- Preferably done *prior* to residency; could take 2 of these *during* 24 month training
 - Extended programs could do all of these
 - Much still under discussion



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Potential Affiliations

- CAMPEP MS (or PhD) with outside residency program
- Post doc (2 year) linked with residency (2 year)
- Community hospital or group practice with academic residency program
- ...



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Research

- NOT part of 24 month residency
- Post Doc independent of Residency
- Fellowship >2 years with integrated applied research
- Discussion of required research component in residency?



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Current Status - Residencies and Resident Positions

July 2011

| | Therapy | Imaging |
|--|-----------------|--------------|
| CAMPEP accredited | 46 | 6 |
| Programs in review | 13 | 1 |
| Accredited DMP programs | 1 | 1 |
| Other potential programs | >30 | 1 |
| TOTAL | >90 | 9 |
| Potential residents per year (at 1.2-2 residents/prog-yr) | ~110-200 | 12-20 |



Thank You

