So You Want to Fund a Medical Physics Residency Program

Work Group Overview and Residency Funding Basics

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Residency program status

• There are currently approximately 100+ medical physics residency programs in existence in the US and Canada, with around 80 being CAMPEP approved.

• The majority are therapeutic medical physics programs, with around 11 more being either imaging or nuclear medicine.
Purpose of working group

• There is a large need for more residency programs in the imaging and nuclear medicine fields. There is also need for therapy programs.

• The mechanism for funding the residency programs are widely variable including backing from CMS, AAPM and related entities such as RSNA, self-funded, and vendor supported.
Most CAMPEP approved residency programs are associated with an academic university. Acquiring funding outside of the university setting has additional complexities.

There exists confusion over which avenues of funding are appropriate.
Purpose of report & talk

- The purpose of this report will be to examine the various mechanisms for funding medical physics residency programs.
- Encourage more residency programs to be established and maintained.
Why more residencies?

“Despite the current oversupply, current capacity in CAMPEP therapy physics residency programs must double by 2020.”
Need for more RO physicists
Why do I want a residency?

- Residency programs can save you money
- Residency programs can improve the quality of care at your institution
- Residency programs can help the institution grow both financially and academically
What’s in a budget?

- Drained resources at first, including need for space, computers, administrative services and support, etc.
- Time from the faculty and staff
- Plan it from a business model stand-point
- The cost of supporting two residents is approximately equivalent to supporting one CMD*
- The 1 FTE of Resident labor “costs” 0.5 FTE from faculty*

Courtesy of M. Mills, SDAMMP presentation 2013
Residency Program models

- Classic Academic Center
- Academic Center with Medicare (CMS) support
- Hub and Spoke
- Private Provider Organization
- Private Physics Group
- DMP Program
- AAPM/RSNA/ASTRO, etc.
Different Models

- I will talk about Vendors and collaborations
- Bruce Libby will discuss CMS
- Stephan Both will discuss private/internal funding
INFORMAL SURVEY RESULTS
How many residency positions?

Number of Positions

Responses

- 2: 14 responses
- 4: 3 responses
- 6: 2 responses
- 9: 1 response
- 10: 1 response
Mechanism of funding

- Expanded Clinical Contract
- Traded in other position
- Research Grant
- Training Grant
- Approved GME slot
- Paramedical education
- Satellite hospital contribution
- Other

Responses
Mechanism of funding

• Others:
  – Armed services contract
  – Trading in of graduate student assistantships
  – Physician practice plan
  – Hybrid of research money and clinical funds
  – Industry contacts
  – Professional society educational grant
  – Chair’s discretionary funding
Greatest Challenges to funding

- Explaining support and need
- General budgetary issues
- None, Skipped, Administrative or No Problem
- Competition with MD slots
- Ancillary expenses
- GME
- Expanding

The greatest challenge is General budgetary issues, followed by None, Skipped, Administrative or No Problem.
Key words

- Justification
- Declining reimbursement
- Negotiation
- Explanation (of what a physicist is)
- Commitment
- Support
- Expenses (for travel, books, etc.)
- Managerial skills and conversations
• Starting in 2005, the AAPM has awarded research seed grants from the E. & R. Fund, and have so far made 14 such awards.

• A total of 73 Residents and 19 pre-doctoral Fellows have now received support from these programs.

• A total of 45 different hospitals and academic institutions have participated in these programs.

• All Residencies are supported by matching funds from the host institution.

https://www.aapm.org/payment/aspx/edfund.aspx
# AAPM Grant and Fellowship Offerings

## AAPM/RSNA Imaging Physics Residency Grant (2014)

### Description:

**AAPM/RSNA Imaging Physics Residency Grant**

On November 28, 2012, the AAPM Board of Directors approved $500,000 in funding for new imaging physics residencies, either diagnostic or nuclear medicine. RSNA is partnering with AAPM on this program and will provide an additional $500,000. With this funding, it will be possible to provide matching support for 8 new imaging residencies.

Each institution will receive $35,000 per year for 4 years in matching support of 2 residents.

The purpose of the AAPM/RSNA funding is to provide 50% support of a resident's salary for 8 imaging physics residencies that are not currently CAMPEP accredited. The awardee institutions will provide the other 50% support. After the period of the award is over, the intent is that the awardee institutions will continue to fully support the imaging physics residencies.

### Eligibility Criteria:

- Only those imaging physics residency programs that have not previously submitted an application to CAMPEP (prior to Nov 28, 2012) for accreditation are eligible.

- Programs that have received Prior AAPM/RSNA Imaging Physics Residency Grant Funding are not eligible.

<table>
<thead>
<tr>
<th>Type</th>
<th>Grant</th>
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<td>Year</td>
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RSNA and AAPM Announce Recipients of Imaging Physics Residency Grants

OAK BROOK, Ill. (February 17, 2014) – The Radiological Society of North America (RSNA) and the American Association of Physicists in Medicine (AAPM) have announced the recipients of the 2014 AAPM/RSNA Imaging Physics Residency Grants.

They are:

- University of Chicago, Zhengfeng Lu, Ph.D., Program Director; David Paushter, M.D., Chair of Radiology
- Duke University Medical Center, Ehsan Samei, Ph.D., Program Director; Erik Paulson, M.D., Chair of Radiology
- Emory University, Jonathon A. Nye, Ph.D., Program Director; Carolyn C. Meltzer, M.D., Chair of Radiology
- Indiana University School of Medicine, Yun Liang, Ph.D., Program Director; Valerie P. Jackson, M.D., Chair of Radiology
- University of Oklahoma Health Science Center, Jagadeesh R. Sonnad, Ph.D., Program Director; Anthony M. Alleman, M.D., Chair of Radiology
Emory model

• Resident 1:
  – 50% AAPM/RNSA
  – 50% Industry Affiliation Contract

• Resident 2:
  – 50% Department chair
  – 50% Industry Affiliation Contract

→Smart use of blending funds to make more residency slots happen!
Vendor funding

- Varian Medical Systems supported two residencies in Clinical Radiation Oncology from 1993 until 2007.
- Elekta Oncology supported one residency in Clinical Radiation Therapy per year from 1998 until 2002.
Conclusions

• There are opportunities for funding that exist from outside entities
• These are rare and competitive
• There might be easier ways....