MP Academic Program Directors:
The 2015 Meeting addresses two ongoing developments of fundamental importance to the future of medical physics education. The intent is to seek input from SDAMPP members by reviewing these developments. **Session I** looks at the development of SDAMPP infrastructure including Committees charges, membership and functions to serve growing needs for communication to define policy areas requiring united action then opens discussion for member input. Can SDAMPP provide documented input to ABR, CAMPEP, AAPM and RSNA to assure continued effectiveness in teaching the right topics at the right time in the right way to meet the needs of contemporary radiation medicine? **Session II** looks at the most recent information on the introduction of the 2015 resident match program from two of the primary medical physics match program designers (John Gibbons and John Antolak) as well as addressing the needs of students who either do not match or do not wish to match as they desire careers in academic, regulatory or corporate medical physics. Again time is set aside for member comments and input.

<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30AM</td>
<td>7:55AM</td>
<td>Continental Breakfast</td>
<td></td>
</tr>
<tr>
<td>7:55AM</td>
<td>8:00AM</td>
<td>Welcome</td>
<td>Talk 0, Amy Harrison</td>
</tr>
</tbody>
</table>

**I. Committee Updates: Missions and Membership**

<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00AM</td>
<td>8:10AM</td>
<td>Executive Committee and Nomination Committee</td>
<td>Gary Fullerton</td>
</tr>
<tr>
<td>8:10AM</td>
<td>8:20AM</td>
<td>Annual Meeting Committee + Professional Issues</td>
<td>Amy Harrison</td>
</tr>
<tr>
<td>8:20AM</td>
<td>8:30AM</td>
<td>Education Practices Committee</td>
<td>Edward Jackson</td>
</tr>
<tr>
<td>8:30AM</td>
<td>8:40AM</td>
<td>Finance Committee</td>
<td>Samuel Armato</td>
</tr>
<tr>
<td>8:40AM</td>
<td>8:50AM</td>
<td>Global Activities Committee</td>
<td>Gary Fullerton</td>
</tr>
<tr>
<td>8:50AM</td>
<td>9:00AM</td>
<td>Membership Committee</td>
<td>Beth Schueler</td>
</tr>
<tr>
<td>9:00AM</td>
<td>9:10AM</td>
<td>Trainee Affairs Committee</td>
<td>Jay Burmeister</td>
</tr>
<tr>
<td>9:10AM</td>
<td>9:20AM</td>
<td>Outreach Committee</td>
<td>Talk 8, Robert Pizzutiello</td>
</tr>
<tr>
<td>9:20AM</td>
<td>9:30AM</td>
<td>Coffee Break</td>
<td></td>
</tr>
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</table>

**II. Update on the Match**

<table>
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<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30AM</td>
<td>9:35AM</td>
<td>Straw Survey on Satisfaction</td>
<td>Amy Harrison</td>
</tr>
<tr>
<td>9:35AM</td>
<td>9:55AM</td>
<td>Updates from the Match Oversight Committee</td>
<td>John Antolak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MS Matches vs PhD Matches</td>
<td>John Gibbons</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dan Bourland</td>
</tr>
<tr>
<td>9:55AM</td>
<td>10:15AM</td>
<td>A Trainee's View on Matching</td>
<td>Anna Rodrigues</td>
</tr>
<tr>
<td>10:15AM</td>
<td>10:35AM</td>
<td>What Happens When There's No Match</td>
<td>Bruce Libby</td>
</tr>
<tr>
<td>10:35AM</td>
<td>10:55AM</td>
<td>Helping the Unmatched Residents Find a Path</td>
<td>Robert Pizzutiello</td>
</tr>
<tr>
<td>10:55AM</td>
<td>11:15AM</td>
<td>Panel Discussion</td>
<td>OPEN</td>
</tr>
</tbody>
</table>

Adjourn to SDAMPP Business Meeting, 11:15 AM – 12 Noon
Annual Meeting 2015
8am - 12 noon, July 11
Anaheim, California

I. Committee Updates: Missions and Membership

II. Update on the Match
I. Committee Updates: Missions and Membership

a. Nominations Committee

b. Executive Committee

Gary D. Fullerton, PhD
President 2015
1a. Nomination Committee

Gary Fullerton, PhD
Nomination Committee 2015

Dr. Gary Fullerton, PhD
Chair, Board President (voting)
01/01/2015 - 12/31/2015
gfullerton@satx.rr.com

Dr. John Bayouth, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
bayouth@humonc.wisc.edu

Dr. J. Daniel Bourland, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
bourland@wakehealth.edu
1. Nominations Committee – By-laws Charge

The President shall appoint a Nominating Committee each year at least six months before the next Annual Business Meeting, which shall make nominations for Board Members At-Large, President-elect, Secretary, and Treasurer. This Committee shall be composed of at least three members in good standing (either Regular or Emeritus Members), and the committee chair will be appointed by the President. Nominees put forward by the Nominating Committee will be approved by the Board prior to being distributed to the membership for consideration.

G. Fullerton (Chair)
J. Bayouth, D. Bourland
2015 Nomination Committee Report

• Complete: Presented at business meeting

• Nominations from Membership are sought

• By tradition should represent a graduate program
Draft SDAMPP Rules and Policy

1. Articles of Incorporation and By-laws on available on web page
2. By-laws take normal place of Constitution
3. Board is preparing “Rules and Policy” to govern SDAMPP day-to-day operations
4. Members will have opportunity to comment on “R & P” as the Board creates infrastructure
5. Board concepts and actions will be on Web page
1b. Executive Committee

Gary Fullerton, PhD
Executive Committee 2015

Dr. Gary Fullerton, PhD
Chair, Board President (voting)
01/01/2015 - 12/31/2015
gfullerton@satx.rr.com

Dr. Samuel Armato III, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
s-armato@uchicago.edu

Dr. J. Daniel Bourland, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015

Dr. Beth Schueler, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015

Ms. Amy Harrison, MS
President-Elect 2015
1b. Executive Committee Issues / Actions for 2015

(1) Draft charge for the Executive Committee which is mentioned but undefined in By-laws.
(2) Undertake completion of the SDAMPP Committee Infrastructure envisioned but undefined in the By-laws.
(3) Create and document approval of SDAMPP Rules and Policy to govern day-to-day operations of the society.
(4) Upgrade the SDAMPP Web page to make it a most useful tool for collaboration between Directors of both graduate and residency programs in medical physics.
1. Executive Committee – Draft Charge

The Executive Committee shall consist of the President, the President-Elect, the Chairman of the Board, the Secretary, the Treasurer, and, if appointed, the Executive Director. Additional members may be authorized according to the Rules.

The duties of the Executive Committee shall be in exercising general supervision of the business of the Corporation in the intervals between Board meetings as provided by the SDAMPP Rules and Policy.
**SDAMPP 2015 Budget**

as approved 12/17/14

Income: $17,625

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership dues (based on 2014 membership + 18 regular members)</td>
<td>$16,125</td>
</tr>
<tr>
<td>91 regular members</td>
<td></td>
</tr>
<tr>
<td>4 emeritus members</td>
<td></td>
</tr>
<tr>
<td>0 honorary members</td>
<td></td>
</tr>
<tr>
<td>5 associate members</td>
<td></td>
</tr>
<tr>
<td>Annual meeting registration</td>
<td>$1,500</td>
</tr>
</tbody>
</table>

Expenses: $17,579

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPM staff support (estimated)</td>
<td>$6,500</td>
</tr>
<tr>
<td>AAPM office expenses</td>
<td>$50</td>
</tr>
<tr>
<td>Web site design</td>
<td>$3,000</td>
</tr>
<tr>
<td>Annual meeting food</td>
<td>$1,700</td>
</tr>
<tr>
<td>Annual meeting AV</td>
<td>$600</td>
</tr>
<tr>
<td>Travel</td>
<td>$2,000</td>
</tr>
<tr>
<td>Medical Physics Match</td>
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</tr>
<tr>
<td>Insurance</td>
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</tr>
<tr>
<td>Conference calls</td>
<td>$100</td>
</tr>
<tr>
<td>Web-X</td>
<td>$100</td>
</tr>
<tr>
<td>CT Corp fee</td>
<td>$365</td>
</tr>
<tr>
<td>Checking account service fees</td>
<td>$264</td>
</tr>
<tr>
<td>PayPal bank fees</td>
<td>$400</td>
</tr>
</tbody>
</table>
SDAMPP 2015 Budget
as approved 12/17/14

Income: $17,625

Membership dues $16,125
(based on 2014 membership + 18 regular members)
91 regular members
4 emeritus members
0 honorary members
5 associate members
Annual meeting registration $1,500

Expenses: $17,579

AAPM staff support (estimated) $6,500
AAPM office expenses $50
Web site design $3,000
Annual meeting food $1,700
Annual meeting AV $600
Travel $2,000
Medical Physics Match $1,000
Insurance $1,500
Conference calls $100
Web-X $100
CT Corp fee $365
Checking account service fees $264
PayPal bank fees $400
REDESIGN OF WEB PAGE

DESIGN GOAL: MEMBER UTILITY and TRANSPARENCY
2015 Board of Directors

President: Gary Fullerton (2015-2016)
Chair of the Board: J. Daniel Bourland (2015-2016)
Secretary: Beth Schueler (2014-2016)
Treasurer: Samuel Armato (2012-2015)
Graduate Board Member-At-Large: Jay Burmeister (2014-2016)
Residency Board Member-At-Large: Amy Harrison (2012-2015)
Graduate Board Member-At-Large: Edward Jackson (2015-2017)
Board Member-At-Large: Bruce Libby (2015-2017)
Residency Board Member-At-Large: Robert Pizzutiello (2014-2016)
Board Member-At-Large: Lawrence Rothenberg (2015-2017)
Graduate Board Member-At-Large: Wendy Smith (2014-2016)
2015 SDAMPP Committees

Click on a committee below to view the members.

+ Annual Meeting Committee
+ Education Practices Committee
+ Executive Committee
+ Finance Committee
+ Global Activities Committee
+ Membership Committee
+ Nomination Committee
+ Outreach Committee
+ Professional Issues Committee
+ Trainee Affairs Committee
Committees

Click on a committee below to view the members.

+ Annual Meeting Committee

Ms. Amy Harrison, MS
Chair, Board Member (voting)
01/01/2015 - 12/31/2015
harrisonsouthwood@comcast.net

Dr. Michael McNitt-Gray, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
mmcnittgray@mednet.ucla.edu
Member Login

Username: Fullerton

Password: *****

Submit  Forgot your Username/Password
Access Denied!

You have entered an incorrect username and/or password. Please check your entries and try again.
Member Directory

Search: Ha

(search by first name, last name, or institution)

Submit  Member Directory PDF
Member of Board of Directors as Board Member-At-Large (01/01/2012 - 12/31/2015)
Chair of Professional Issues Committee (01/01/2015 - 12/31/2015)
Chair of Annual Meeting Committee (01/01/2015 - 12/31/2015)
### Links to Programs

#### List of residencies and graduate programs in medical physics

Compiled by SDAMPP [Last updated December 5, 2014]

Society of Directors of Academic Medical Physics Programs, Inc

**Disclaimer:**

1. This list is updated annually. Please note the date of the most recent update above.
2. Some of the programs identified as non-accredited may be in the process of acquiring accreditation at the time of publication and may presently be accredited. Please visit the CAMPEP website for a more up-to-date listing of accredited programs.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Director or Primary Contact</th>
<th>Degrees Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAMPEP Accredited Graduate Programs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carleton University</td>
<td>David W. O. Rogers, PhD</td>
<td>PhD accredited + (unaccredited) MSc</td>
</tr>
<tr>
<td>Cleveland State University; The</td>
<td>Allan Wilkinson, Ph.D., Director</td>
<td>MS</td>
</tr>
<tr>
<td>Cleveland Clinic</td>
<td>Xiang Li, Ph.D., Co-Director</td>
<td></td>
</tr>
<tr>
<td>Columbia University</td>
<td>Cheng Shie Wuu, PhD</td>
<td>MS, Certificate</td>
</tr>
</tbody>
</table>
Board Minutes and Actions

Articles of Incorporation  2015-04-24 Minutes
By-Laws  2015-03-16 Minutes
Officers  2015-02-13 Minutes
Committees  2014-12-17 Minutes
News  2014-12-01 Minutes
Board Minutes and Actions  2014-07-21 Minutes
2014-04-16 Minutes
SDAMPP
Board of Directors Meeting
Date: April 24, 2015
Electronic

Attendance:
J. Daniel Bourland Member – Board Chair
Gary D. Fullerton Member – President
Beth A. Schueler Member – Secretary
Samuel G. Armato Member – Treasurer
Jay W. Burmeister Member – Board Member-at-Large
Amy S. Harrison Member – Board Member-at-Large
Edward F. Jackson Member – Board Member-at-Large
Wendy L. Smith Member – Board Member-at-Large
Robert J. Pizzutiello Member – Board Member-at-Large

<table>
<thead>
<tr>
<th>Page #</th>
<th>Agenda Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Election results were reviewed. 52 ballots were returned (39% of voting members).</td>
</tr>
<tr>
<td></td>
<td><strong>Motion: Approve the following SDAMPP election results:</strong></td>
</tr>
<tr>
<td></td>
<td>President-elect:</td>
</tr>
<tr>
<td></td>
<td>Amy S. Harrison</td>
</tr>
<tr>
<td></td>
<td>At-large Board members:</td>
</tr>
<tr>
<td></td>
<td>Edward F. Jackson</td>
</tr>
<tr>
<td></td>
<td>Bruce Libby</td>
</tr>
<tr>
<td></td>
<td>Lawrence N. Rothenberg</td>
</tr>
<tr>
<td></td>
<td>Motion was approved; 8 yes, 0 no, 0 abstain.</td>
</tr>
</tbody>
</table>
# SDAMPP 2015 Budget

as approved 12/17/14

## Income: $17,625

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## Expenses: $17,579

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</table>
By-laws Section 7.0 Committees

• Membership in standing committees shall be limited to Regular or Emeritus Members of the Society in good standing. Membership on ad hoc committees is not restricted to Regular or Emeritus Members of the Society, and may include individuals who are not members of the Society. Ad hoc committees will serve until dissolved by the President or Board.
2a. Annual Meeting Committee

Amy Harrison, MS
Annual Meeting Committee

Members:
1. Michael McNitt-Gray
2. Chair=President Elect, currently- Amy S. Harrison

Guidance volunteered from Past President Dan Bourland and President Gary Fullerton

What can you do?
- Send suggestions for improvements and topics

Amy.harrison@jefferson.edu
2a. Draft Charge: Annual Meeting Committee

To organize the room, format, agenda and presenters for the annual meeting. To generate with board participation and approval the agenda for the annual meeting. The committee will submit several topics for the board review during the Spring Board Conference call. Agenda will be finalized via electronic board approval by Memorial Day; speakers will be requested as soon as possible.
2b. Professional Issues Committee

Amy Harrison, MS
Draft Charge: Professional Issues Committee

The professional committee examines needs and demands on directors of academic programs for providing high standard education, improving educator practice, promoting best practice and policies that support the academic program directors as well as providing recommendations on SDAMPP professional policy and work, as appropriate.

Our “to do” list:

1. Create communications between directors/directors; directors/faculty; directors+faculty/trainees; wrt promoting career development programs

2. Create professional standards for communication

3. Create process for adjudication of potential conflicts between members or other matters relating to professional behavior of members
Professional Issues Committee

Initial Members:
1. Amy S. Harrison
2. Your name here?!

What can you do?
- Become a committee member
- Send suggestions

Amy.harrison@jefferson.edu
3. Education Practices Committee

Ed Jackson, PhD
3. Education Practices Committee

• Current membership:
  – Edward F. Jackson, PhD, Chair
  – John Antolak, PhD
  – Daniel Bourland, PhD
  – Jay Burmeister, PhD
3. Draft Charge: Education Practices Committee

The Education Practices Committee (EPC) will consider and make recommendations on educational practice to the SDAMPP Board. The committee will

1. obtain, directly and/or from existing sources, survey data on graduate and residency program matriculation and completion rates, as well as other pertinent statistical information considered useful for directors of such programs,

2. investigate and bring forward to the SDAMPP Board issues of concern identified by SDAMPP members, and

3. encourage and facilitate the sharing of best educational practices among SDAMPP members.
3.0 EPC Issues / Actions for 2015

(1) Review current data from CAMPEP annual surveys of graduate and residency programs to determine if additional survey information is needed and, if so, either work with CAMPEP to incorporate questions necessary to obtain such information or develop an independent survey.

(2) Review request from the AAPM Working Group on Funding Options for Residency Programs (WGFORP) regarding a brief survey to be distributed to all residency program directors. Initial review completed with recommendation to potentially expand the survey question set to obtain more comprehensive data.

(3) Review potential impact of residency requirement, in order to complete ABR exam process, on MS programs and graduates.
4. Finance Committee

Sam Armato, PhD
4. Finance Committee 2015

Dr. Samuel Armato III, PhD
Chair, Treasurer (voting)
01/01/2015 - 12/31/2015

Dr. Wendy Smith, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
Finance Committee – Draft Charge

The draft charge to the Finance Committee is:

(1) to prepare the annual budget for presentation to the Board at its December meeting,

(2) to negotiate contracts for services by external organizations (e.g., AAPM),

(3) to recommend changes/additions to SDAMPP income stream, as needed, and

(4) to maintain overall financial viability so that the goals of the Society may be achieved.
Issues / actions for 2015

(1) Complete Statement of Work with AAPM for staff support services

(2) Continue to grow the membership base to increase revenue

(3) Continue to develop balanced budgets and to keep SDAMPP operating in the black

(4) Work with the Board and Committees to engage in activities that make efficient use of SDAMPP financial resources
5. Global Activities Committee

Gary Fullerton, PhD
President SDAMPP
5. Global Activities Committee 2015

Dr. Gary Fullerton, PhD
Chair, Board President (voting)
01/01/2015 - 12/31/2015
gfullerton@satx.rr.com

Dr. Maria-Ester Brandan, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
brandan@fisica.unam.mx

Dr. James Dobbins III, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015
james.dobbins@duke.edu

Dr. Leah Schubert
At-Large-Member (voting)
01/01/2015 - 12/31/2015
Leah.Schubert@ucdenver.edu

Seeking representative international members
5. Global Activities Committee – Draft Charge

This *ad hoc* Committee shall consist of one or more SDAMPP members and representative members from around the world who need not be members of SDAMPP. The charge to the committee is to maintain communication with Directors of medical physics educational programs from other countries and continents to provide advice and recommendations for SDAMPP Board programs and actions. The goal is to promote widespread application of the latest educational methods and curricula necessary for the successful training of medical physicists worldwide for employment in education, research and clinical specialties necessary for state-of-the-art patient care.
6. Membership Committee

Beth Schueler, PhD
Secretary SDAMPP
6. Membership Committee 2015

Dr. Beth Schueler, PhD  
Chair, Board Secretary (voting)  
01/01/2015 - 12/31/2015  
schueler.beth@mayo.edu

Dr. Libby Brateman  
At-Large-Member (voting)  
01/01/2015 - 12/31/2015  
bratel@radiology.ufl.edu

Dr. Gary Fullerton, PhD  
Secretary, Board President (voting)  
01/01/2015 - 12/31/2015  
gfullerton@satx.rr.com

Dr. Richard Wendt  
At-Large-Member (voting)  
01/01/2015 - 12/31/2015  
rwendt@mdanderson.org
Issues / actions for 2015

• 2015 Membership recruitment program
• Update web page member application process
• Evaluation of reported problem with timing of SDAMPP annual meeting on member attendance
• Proposal to open Associate Member status to program administrators
• Jennifer Johnson: An increasingly larger percentage of medical physics students are not becoming AAPM members
7. Trainee Affairs Committee

Jay Burmeister, PhD
7. Trainee Affairs Committee 2015

Dr. Jay Burmeister, PhD
Chair, Board Member (voting)
01/01/2015 - 12/31/2015

Dr. Samuel Armato III, PhD
At-Large-Member (voting)
01/01/2015 - 12/31/2015

Seeking additional members
(including student / trainee member)
7. Trainee Affairs Committee – Draft Charge

The draft charge to the Trainee Affairs Committee is:
(1) to evaluate issues affecting medical physics students and trainees and their respective training institutions,
(2) to develop educational and professional programs to enhance the development of trainees,
(3) to work with the AAPM Student and Trainees Subcommittee to create a venue for MP trainees to provide feedback and to become involved in the development of MP education, and
(4) to advise the SDAMPP Board on need for policy actions necessary to improve medical physics education and training in both national and international programs.
7. Issues / actions for 2015

(1) Residency Fair – In conjunction with AAPM Students and Trainees Subcommittee. Wednesday (11:00-12:15, Platinum Ballroom 6)

(2) Solicit feedback from AAPM STSC on student / trainee issues (e.g., professional supply & demand, graduate trainee production vs. residency spots, future of Medical Physics graduate degrees, future certification landscape in MP, dissemination of information to prospective students, etc.)

(3) Evaluate the status of graduate and residency training pipelines and advise SDAMPP on potential policy actions
8. Outreach Committee

Robert Pizzutiello, PhD
8. Outreach Committee

Initial Members

1. John Antolak
2. Nikos Papanikolaou
3. Bob Pizzutiello, Chair
8. Outreach Committee 2015

Dr. Robert Pizzutiello
Chair, Board Member (voting)
01/01/2015 - 12/31/2015
bobpizz55@gmail.com

Dr. John Antolak, PhD
Webinar Director (voting)
01/01/2015 - 12/31/2015
Antolak.John@mayo.edu

Dr. Niko Papanikolaou
Webinar Director (voting)
01/01/2015 - 12/31/2015
papanikolaou@uthscsa.edu
Outreach Committee

Our “to do” list:
1. Prepare a charge statement
2. Contacts for International Training opportunities
3. Evaluate prospects for co-sponsored educational events

What can you do to help?
A. Email me ideas for the charge statement and “To-Do” list
B. Let me know if you are interested to join the committee

Bobp@upstatemp.com

THANKS!
II. Update on the Match

a. Functioning in 2015
b. Trainee Options

Amy Harrison, MS
President-Elect 2015
Time for Coffee Break
MedPhys Match 2015
The Start of It All

The MedPhys Match Oversight Team
John P. Gibbons, Jr., Ph.D., Oschsner Health - AAPM
John Antolak, Ph.D., Mayo Clinic - AAPM
J. Daniel Bourland, Ph.D., Wake Forest - SDAMPP
and
Jonah Peranson, National Matching Services
Residency Program & Applicant Stats

• Many more Residency Applicants than Positions
• More Therapy Residencies than Imaging Residencies

Accredited Residency Programs & Slots: 100+, ≈165
  – Therapy – 79+3+2 programs; 126 residents
  – Imaging – 11+2+6, 2 programs; 29 residents
  – DMP – 2 approved, 10 at resident level

Goals to meet estimated staffing needs: ≈165 +/-
  – Therapy 125-150 residents/year
  – Imaging 25-30 residents/year

Applicants – 300 to 400 (pool increases each year?)
AAPM “Gentleman’s Agreement”
For Medical Physics Residency Offers

• Attempt to aid the residency recruitment process
• 2013 Statement
  – No app deadlines before 12/1/13
  – No offer deadlines before 2/17/14
• A Non-binding Agreement
• Mixed success

http://www.aapm.org/org/committees/committee/article.asp?id=3340
Gentleman’s “Disagreement”

• Programs wishing to obtain their desired applicants make early offers
  – Students may accept less-desirable positions because the applicant-residency-slot-ratio $>> 1$
  – Over time, more programs violating agreement and extending early offers
• Unfair to applicants – lose desired position
• Unfair to programs – lose desired applicants
• Recruitment logistics difficult for all
Solution Considered
A National Medical Physics Matching Program

A “Match” Similar to MD Residencies

• July 2013 – AAPM WGCMPR voted to investigate and implement match system, after obtaining legal opinion
• Sept 2013 – AAPM’s legal council advised against running program through AAPM; recommended using NRMP
• Some concern about copyright re: MD “Match” program
• Discussion to formulate a solution for the 2014 recruitment year for residencies starting July 1, 2015
National Resident Matching Program
NRMP

- Established 1952
- Independent Organization
- 2012 Match Data
  - 4400 Programs with 27000 positions
  - 38,000 Applicants
    - 17,000 U.S. 2012 Med Student Grads
    - 21,000 “Independent” applicants
- Matches Physicians only

NRMP recommended using
National Matching Services, Inc.

http://www.nrmp.org
National Matching Services, Inc.
natmatch.com

• 35 year history of matching
• Match large variety of groups (100 – 25000 applicants)
• Developers/Implementers of the Roth-Peranson Algorithm
2012 Nobel Prize in Economics went to Alvin E. Roth and Lloyd S. Shapley "for the theory of stable allocations and the practice of market design"

• Roth-Peranson algorithm
• Applicant’s ranking preferred to institution’s ranking
• Couples match allowed
  • paired rankings
  • different cities possible
National Medical Physics Match 2013 – 2014 Developments*

• October 2013 – May 2014: AAPM/SDAMPP Joint Committee worked with NMS to develop MedPhys Match run by NMS

• *July 2014: Discussions & Approvals to create MedPhys Match
  – SDAMPP Annual Meeting, CAMPEP Breakfast Meeting, AAPM Education Committee Discussions
  – AAPM Board of Directors – Substantial financial subsidy of MedPhys Match costs for two years: for both residency programs and applicants
    – use of MP-RAP as data “frontend”
  – SDAMPP Board of Directors - $1,000 subsidy of MedPhys Match, ~12% of SDAMPP annual budget
Solution Implemented
A National Medical Physics Matching Program

The “MedPhys Match”

• Over 2013-2015, established a National Medical Physics Match Program which parallels the NRMP for physicians
• **Start of Aug – Sep, 2014: Programs; Dec, 2014 Applicants**
• Voluntary participation by Applicants and Residency Programs
• Algorithm is simple, and is implemented using applicant and institution data from the AAPM MP-RAP system
• Oversight committee of J Antolak (AAPM), J Gibbons (AAPM), D Bourland (SDAMPP), and J Peranson (National Match)
MedPhys Match – Schedule of Dates

2014
Aug – Sep  Program registration
Oct 1   List of Participating Programs goes live
        Interview process ongoing
Dec 1   Recommended deadline for applicant registration
        Interview process ongoing

2015
Feb 18  Rankings instructions distributed online & email
Mar 4   Online rankings system opens
Mar 20  Rank Order List deadline
Mar 27  Match Day! Results released online and by email
Mar 27 - Apr 26 Letters of confirmation signed
MedPhys Match – Residency Start Dates

- Most positions (>95%) start June 15-July 15
- Thus, MedPhys Match available for positions that begin from June 1, 2015 – December 31, 2015
- January – May start dates possible through MedPhys Match - start date must be clear on the Agreement
Resident Recruitment
MP-RAP Statistics (2015)

• Institutions: 75 Programs participated
• Programs received 16(46) – 274 applications
  • A few imaging programs received ~50 applications
  • 31 Tracks received > 150 applications.
• Applicants: 318 unique applicants
• Total of 10146 applications (average of 32 applications/applicant).
Resident Recruitment

• Institutions: 76 Programs participated, 87 tracks, 107 positions
  – 66 Therapy Programs; 10 imaging programs
  – 68 CAMPEP-accredited; 8 Non-accredited
  – All programs participated in MP-RAP

• Applicants: 400 unique applicants

- Accredited Therapy Programs
  - 61/79 Accredited Therapy Programs participating
  - Of the 18 non-participating programs
    - 9 are outside the US (2 Canadian programs are participating)
    - 2 are affiliated with graduate programs
    - 3 do not have positions in 2015
  - 59/63 of US programs taking applicants are in the match

- Accredited Imaging Programs
  - 8/11 Accredited Imaging Programs participating
    - One Canadian program not participating

- Total US Program Participation: 67/73 (92%)
MedPhys Match
Future Issues to Consider

• Ownership and Governance of MedPhys Match
  – SDAMPP and AAMP roles
• Oversight of MedPhys Match Policies and Procedures
• Compliance Oversight for Applicants and Programs
• Match Program Options for Applicants
  – Early notice for match and no-match applicants
  – Match for second and potentially third years?
  – Program/Applicant support for post-match available slots
• Resident application limits supported by AAPM
Conclusions

• A Matching Program for medical physics residency positions has been implemented - MedPhys Match approved by AAPM and SDAMPP in July 2014 for 2015 placement

• National Matching Services, Inc: match algorithm provider

• MP-RAP interfaced with NatMatch database

• Program participation high: 90% of accredited US programs in both therapy and imaging recruiting for 2015

• AAPM-SDAMPPP Committee providing oversight – future governance, policy and compliance issues in consideration
Medical Physics Residency Applications and the MedPhys Match: The Applicants’ Perspective

SDAMPP · AAPM 2015 · July 11, 2015

Titania Juang, PhD
Medical Physics Resident, Stanford University
OVERVIEW

One Applicant’s Application & Interview Experience

- Timeline of Application and Interviews

1st Year Residents Feedback Poll

- 18 Respondents (1/6th of total matched residents)
- Respondent Demographics & Application Statistics
- Open-Ended Feedback
ONE APPLICANT’S EXPERIENCE

▪ Residency Applicant Description
  ▫ PhD Candidate at a CAMPEP-accredited Medical Physics Graduate Program
  ▫ BS in Bioengineering
  ▫ Prior work experience in radiation oncology research
  ▫ Passed ABR Part 1
  ▫ Some clinical exposure/experience
APPLICATION & INTERVIEW TIMELINE

- **12/1/2014**: All Applications Submitted

- **22 Applications**
- **16 Interview Offers**
  - **12 Accepted**
  - **2 Rejections**
  - **4 No Response**

Legend:
- Application Due Date
- + Response from Residency, Accepted
- × + Response from Residency, Declined
- - Response from Residency
APPLICATION & INTERVIEW TIMELINE

12/19/2014
First residency responses & interview offers received

2/3/2014
Last residency response & interview offer received

Response Time Days
Fastest 1
Slowest 51
Average 11 ± 15

Time for Response After Due Date

- Application Due Date
- + Response from Residency, Accepted
- + Response from Residency, Declined
- - Response from Residency

12/19/2014
First residency responses & interview offers received

2/3/2014
Last residency response & interview offer received
APPLICATION & INTERVIEW TIMELINE

- On-Site Interview
- Response from Residency, Accepted
- Application Due Date
APPLICATION & INTERVIEW TIMELINE

Resorted in order of interview date

- On-Site Interview
- Response from Residency, Accepted
- Application Due Date
COSTS OF INTERVIEWING

- How much did all this travel cost?
COSTS OF INTERVIEWING

- How much did all this travel cost?
  - $3,986.34
COSTS OF INTERVIEWING

▪ How much did all this travel cost?
  ▫ $3,986.34

▪ Caveats
  ▫ Stayed with family & friends for 7 nights total
  ▫ 2 interviews were local
  ▫ Managed to schedule a couple sets of 2-3 interviews back-to-back in the same part of the country
  ▫ 1 residency provided travel support
COSTS OF INTERVIEWING

▪ How much did all this travel cost?
  ▫ $3,986.34 ← This is a low figure

▪ Caveats
  ▫ Stayed with family & friends for 7 nights total
  ▫ 2 interviews were local
  ▫ Managed to schedule a couple sets of 2-3 interviews back-to-back in the same part of the country
  ▫ 1 residency provided travel support

▪ Attending the same number of interviews could easily cost several thousand more
RESIDENCY APPLICATION FEEDBACK

- Online feedback poll sent out to 1st year residents
  - Anonymous
  - Candid responses encouraged
  - No required responses

- 12 questions
  - Demographics
  - Application statistics
  - Open-ended feedback
Complete results and respondent answers have been compiled in a comprehensive written report that will be made available to SDAMPP.
RESPONDENT DEMOGRAPHICS

- MS, Medical Physics: 4 respondents
- PhD, Medical Physics: 12 respondents
- PhD, Other; Medical Physics Certificate: 1 respondent
- PhD, Other; Direct Clinical Experience: 1 respondent

Total responses: 18/18
RESPONDENT DEMOGRAPHICS

- **MS, Medical Physics**: 4 respondents
- **PhD, Medical Physics**: 9 respondents (3 reapplicants)
- **PhD, Other; Medical Physics Certificate**: 1 respondent
- **PhD, Other; Direct Clinical Experience**: 1 respondent

Responses: 18/18
3. How many residencies did you apply to?

4. How many residencies offered you on-site interviews?

5. How many interviews did you attend?
6. If you declined interviews you were offered, what were your primary reasons for declining?

- Location: 7
- Scheduling Conflicts: 5
- Enough Interviews: 5
- Cost: 4
- Time Constraints: 2
Were you unable to attend any interviews that you initially accepted? If so, what prevented you from attending?

- Scheduling Conflicts:
  - Count: 9/18

- Location/Travel Difficulties:
  - Count: 3/18

1/9 Response was in the negative, but provided relevant comments.
7. What residency characteristics determined your residency ranking order?

- Work Environment: Primary (17/18)
- Location: Primary (12/18)
- Reputation: Primary (7/18)
- Program Structure/Organization: Primary (6/18)
- Facilities/Equipment: Primary (7/18)
- Feedback from Residents: Primary (4/18)
- Program Size: Primary (4/18)
- Family Considerations: Primary (3/18)
- Research: Primary (6/18)
- Benefits, Salary vs Cost-of-Living: Secondary (11/18)
8. Considering all of your interviews across all institutions, what were the greatest positives you took away from your interviewing experience?

- Meeting Other Candidates: Count 8
- Meeting Interviewers (faculty/residents): Count 8
- Learning More About Programs/Clinics/MedPhys: Count 6
- Applicant Presentations: Count 2
- Talking to Residents: Count 2

Responses: 17/18
8. Considering all of your interviews across all institutions, what were the greatest positives you took away from your interviewing experience?

▪ “I really enjoyed conversing with people on both ends of the interviewing table. There was an immense amount of fascinating research to discuss in addition to peoples' passionate interest in the ability of physicists to aid in the improvement of public health.”

▪ “The interactions were great, both with other candidates and with the interviewers. It was probably the first time I had an opportunity to get feedback from department managers, radiation oncologists, and educators of other disciplines, so their perspectives were good to hear from.”
8. Considering all of your interviews across all institutions, what were the greatest positives you took away from your interviewing experience?

- “Positives would include discussing my research with the interviewers, and learning about unique opportunities some programs would provide, such as classes in radiobiology or access to hyperthermia treatment.”

- “The greatest positive was the amount of presentations I had to do in front of people I didn't know. That was definitely stressful in the beginning but got easier the more I did it. I feel this definitely prepared me for a future job as a professor, and definitely makes it easier to give presentations at conferences. The questions asked and learning how to best answer them was another plus with the presentations.”
9. Again considering all of your interviews across all institutions, what negatives or difficulties did you experience during this process?

- Traveling/Logistical Difficulties: Count 6
- Cost: Count 6
- Communication Issues: Count 4
- Poor Organization of Interviews: Count 4
- Scheduling Difficulties: Count 4
- Intensive Technical Questioning: Count 3
- Interviewer Issues: Count 3
- Time Away from School/Research: Count 2

Responses: 17/18
FREE RESPONSE POLL HIGHLIGHTS

9. Again considering all of your interviews across all institutions, what negatives or difficulties did you experience during this process?

▪ “The logistics, time commitment, and cost of scheduling interviews and arranging travel were by far the most difficult and stressful part of the interview process. Trying to schedule interviews, particularly when interview offers and interview dates could fall on any day in a multiple-month timeframe, took a massive amount of time.”

▪ “A huge negative was how many of the interview days overlapped each other. This was a very stressful aspect of the interviews.”

▪ “The interference of so much travel with my classes was problematic. I hardly went to class in February, and my learning was at the minimum acceptable level.”
9. Again considering all of your interviews across all institutions, what negatives or difficulties did you experience during this process?

▪ “Institutions who chose to torment the applicants by a barrage of technical questions. I get that you want to know what the applicant knows, but one location I went to chose to only ask technical questions. Also don't be hostile if an applicant doesn't know the answer.”

▪ “I found the oral examination given at some interviews to be counterproductive to learning the culture of the group, thereby detracting from my opinion of those institutions.”
9. Again considering all of your interviews across all institutions, what negatives or difficulties did you experience during this process?

- “The observance of match rules was spotty. One interviewer explicitly asked me how I was going to rank his program, and told me that I was going to be their first choice. This was also a lie, as I was not ranked first, or else I would have been matched there (I ranked them first).”
10. How do you feel the interviewing and/or matching process could be improved?

- Coordination of Interview Dates & Locations: 8
- Funding for Interviews: 3
- Coordination of Response Dates: 2
- Better Communication with Candidates: 2
- Interview Day Flexibility: 1

Responses: 17/18
10. How do you feel the interviewing and/or matching process could be improved?

- “It would be wonderful if programs could coordinate a little more so that programs in the same geographic location interviewed back to back (to save on travel costs). (I know this isn't easy to do, but it would have enabled me to take more interviews). When programs only offer one interview day, it was really hard to make that day work. If those programs could offer even one more interviewing day, that would be very helpful.”

- “Coordination between residencies on when interview offers will be released and when interviews will be scheduled. Having regional residency interviews within given blocks of time, and with coordination to prevent scheduling conflicts within these time blocks, could help immensely in lowering the cost of interviewing and preventing a lot of the travel and scheduling difficulties faced by applicants this time around.”
11. On a scale of 1 to 5, how satisfied were you with the match process and results?
Any comments on satisfaction with the match process and results?

- “I think it is a great thing, giving maximum power to applicants while removing stress and gamesmanship. The only big problem was violations of match rules in comments and questions by faculty.”

- “I felt the match process was a very effective way to best place applicants at institutions that liked them.”

- “I like the match process. I don't like that so many intelligent students are going in debt, can't get interviews for a residency, and can't even land a job that at least uses part of their training.”
12. Is there any other feedback on the residency application or match process that you would like to share with SDAMPP?

- “Some of the information was inconsistent and programs were not good about providing professional feedback about application status. As a result, many applications disappeared into the ether, and that was frustrating after spending so much time on them.”

- “Would it be possible to find out where you're getting interviews within a shorter time frame? It was hard (and expensive) to keep changing flight reservations as new interview offers arose.”
12. Is there any other feedback on the residency application or match process that you would like to share with SDAMPP?

- “According to Natmatch, only 46% of applicants were considered for residencies, and 30.3% withdrew or didn't submit, which likely means they couldn't get a single interview to qualify for the match. Of the 402 applicants registered, over 70% did not get placed into residencies. There may be 30~40 PhDs/Postdocs who can delay or avoid residency, but they're an exception and not the rule.

  “Those numbers are not a success story, and they're not headed in the right direction. From this point onward, every year this happens the candidate pool will get larger. There may be a gray area between education and exploitation, but these graduates did not find jobs relevant to their degrees, and most of them won't find them next year, either.”
12. Is there any other feedback on the residency application or match process that you would like to share with SDAMPP?

- “The residency contracts are very different from institute to institute. Some programs match the benefits and salaries of the Medical Physics Residency to other Medical Residencies. There should be some guidelines about the minimum salary level, type of contract, working responsibilities and training objectives to assure that all residents are treated fairly and similarly.”

- “Thank you for making improvements and implementing the match system!”
ACKNOWLEDGEMENTS

- **Amy Harrison, MS**  
  Thomas Jefferson University Hospital

- **Anna Rodrigues, PhD**  
  Duke University

Many thanks to all of my fellow 1\textsuperscript{st} year residents who took time out of their busy second week of residency to respond to the feedback poll, and to SDAMPP for your interest in both the trainee opinion and improving the application process for future applicants!

**CONTACT**  
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NOTE UPDATES

This distribution version of the presentation has been updated to include additional comments and applicant feedback. Complete applicant responses will be available in the written report.

T. Juang
7/17/2015
Applicant Feedback on the Medical Physics Residency Application & Match Process

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1. What is your relevant degree? ................................................................................................................. 2
2. Was this your first time applying to medical physics residencies? ....................................................... 2

Application Statistics .................................................................................................................................. 3

3. How many residencies did you apply to? ................................................................................................. 3
4. How many residencies offered you on-site interviews? ......................................................................... 4
5. How many interviews did you attend? ....................................................................................................... 4

Free Response Questions ............................................................................................................................ 5

6. If you declined interviews you were offered, what were your primary reasons for declining? ............ 5
   Were you unable to attend any interviews that you initially accepted? If so, what prevented you from
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7. What residency characteristics primarily determined your residency ranking order? ..................... 7
   Were there any other secondary factors that influenced how you ranked your residency choices?
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10. How do you feel the interviewing and/or matching process could be improved? ............................. 16

11. On a scale of 1 to 5, how satisfied were you with the match process and results? ......................... 18
    Any comments on satisfaction with the match process and results? .................................................. 18

12. Is there any other feedback on the residency application or match process that you would like to
    share with SDAMPP? ............................................................................................................................... 19

Acknowledgements ....................................................................................................................................... 20
1. What is your relevant degree?

- MS, Medical Physics: 4
- PhD, Medical Physics: 12
- PhD, Other; Medical Physics Certificate: 1
- PhD, Other; Direct Clinical Experience: 1

2. Was this your first time applying to medical physics residencies?

- MS, Medical Physics: 4
- PhD, Medical Physics: 9
- PhD, Other; Medical Physics Certificate: 1
- PhD, Other; Direct Clinical Experience: 1

First-Time Applicant

Reapplicant
3. How many residencies did you apply to?

All Respondents
n=18

<table>
<thead>
<tr>
<th></th>
<th>Max</th>
<th>Average</th>
<th>Min</th>
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<tr>
<td>All Respondents</td>
<td>60</td>
<td>36.3 ± 16.1</td>
<td>3</td>
</tr>
<tr>
<td>MS in Medical Physics</td>
<td>45</td>
<td>39.5 ± 4.5</td>
<td>34</td>
</tr>
<tr>
<td>PhD in Medical Physics</td>
<td>60</td>
<td>32.3 ± 17.7</td>
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<tr>
<td>PhD in Another Field†</td>
<td>58</td>
<td>54.0 ± 5.7</td>
<td>50</td>
</tr>
</tbody>
</table>

† This combines responses from both respondents with PhDs in another field, one with a Certificate in Medical Physics and the other with direct radiation oncology clinical experience.
4. How many residencies offered you on-site interviews?

- **Maximum**: 30
- **Average**: $12.4 \pm 7.6$
- **Minimum**: 2

5. How many interviews did you attend?

- **Maximum**: 14
- **Average**: $8.6 \pm 3.8$
- **Minimum**: 2
Free Response Questions

Responses for each question are listed in random order (i.e., the order of respondents for each question has been randomized). Answers were lightly edited for grammar and spelling or to preserve anonymity, but otherwise appear as entered by the respondent.

6. If you declined interviews you were offered, what were your primary reasons for declining?

Responses 6/18 Applicants attended all interviews offered

- Too much travel
  Inconvenient location

- Cost of attending
  Scheduling conflict

- Conflicting dates. Went with program in area I would rather be located.

- Too expensive
  Scheduling conflict.
  Location was not ideal.
  Already had enough interview offers that I felt comfortable declining.

- Location, time-constraint (writing dissertation + finishing research), overlapping interview dates

- Distance

- Unlikely places for me to rank highly given their locations, and I had plenty of other good interviews.

- Location

- The main reason was financing; definitely spent a lot of money and definitely ran out of money when I was willing to go to more interviews. The other reason was due to relatively less interest in the programs than others.

- The primary reasons were scheduling difficulties (conflicts with other interviews), time constraints given the necessity of finishing dissertation work, and cost. There were some interview invitations that I would have accepted if they had responded sooner in the interviewing period. I also had a high enough number of interviews with my preferred residencies that, particularly toward the end of the interview cycle, it really seemed to be in everyone’s best interest (including that of the residencies in question and the other applicants) for me to decline.
Were you unable to attend any interviews that you initially accepted? If so, what prevented you from attending?

- Yes. Scheduling conflict.
- Yes.
- Yes. There was one. It was at [institution] but when I tried twice to fly to [state], snowstorms occurred both times hence flights were canceled, in result, making me cancel the interview due to much stress with travel.
- I changed my mind on one because of a combination of school constraints, expense, the poor location, and my satisfaction with other interviews.
- Yes, it was due to a schedule conflict.
- A last minute opportunity to present my research to eminent scholars appeared, which was only available for the specific time I was scheduled to interview.
- Difficult place to get to that required too much traveling time.
- Conflict with other interviews.
- Though I did not miss any interviews, I did run into travel problems due to the weather.
What residency characteristics primarily determined your residency ranking order?

Feel free to list multiple factors that most influenced your preferences. This can include both features of the residency programs as well as experiences during the interview process.

Responses

- My top reason was because I heard back from the location I ranked #1. Upon speaking with my advisor and family, this seemed to be the best option. However, I was offered a position in a PhD program and so that made my decision more difficult. In the end, I accepted the residency position because I felt that now was the best time to complete my residency.

- Equipment: I looked for what equipment was used in their facilities. I checked to see if they had many or just a few. Do they have options? Do they use Elekta or Varian products? One of the big reasons why I chose my program was the fact that I can have some experience with Elekta and Varian products which I feel will make me more marketable in my future endeavors.

People: I evaluated the fact of how many therapists, dosimetrists, and physicists they have. I talked and engaged with people not only about physics but also about their lives and see if their personalities would fit well with my own. I asked many questions of their current residents on how they like the program.

Location: I felt that location was very important.

Institution: Is it a well known institution? What is their history of educating physicists? One big factor in choosing my location is that I have heard they train really good clinical physicists.

Research: Do they do any clinical research? Can I work on some research work while in my rotations?

Education: How willing are they to pay for my education if I was to be hired by them?

- I was most interested in personality compatibility. Then I also considered location, and modality exposure.

- Healthy work environment, other functions involved in interviews (i.e., department manager, radoncs, therapists), enthusiasm of current residents, physicist interactions.

- Location, quality of education, non-excessive workload, personal compatibility with faculty.

- Structure of the program and seriousness of the people.
  Resources of the program
  Location of the program
  Chemistry with other MPs.
Location, proximity to family, reputation of program, my level of enthusiasm after attending an interview, hearing the current resident’s experiences, program structure

Personality fit and both the department culture and people within it. I valued having rapport with the current residents (particularly the first year resident[s] who would become my senior resident[s] if I joined the residency), the residency director, and the other faculty. Because all of the residencies I interviewed at were great choices, fit was one of the primary factors in my ranking.

Overall organization of the residency program, including curriculum (rotations and classes), scheduling of rotations, how progress/proficiency would be evaluated, and how we would get feedback from mentors and the residency director.

How much consideration was put into overall training as a medical physicist and preparation for a future career in addition to the required clinical training. One thing that was particularly interesting to me was inclusion of a radiation oncology business/administration aspect, whether as a class or as part of full practice rotation.

How receptive the program director/administration is to resident feedback and implementing improvements based on feedback.

The range of treatment modalities and manufacturers, including whether proton/heavy ion radiotherapy or a ViewRay system was available.

Whether there would be training/rotations in other clinics aside from the main academic medical center, such as at a satellite community hospital or another institution.

Overall happiness/personality of the current residents. Some residents looked miserable which turned me off from that program. Also I felt that I would have not gelled with the other residents.

The people who were currently on staff. If everyone was really nice and supportive then I was attracted to that program. I wanted to enjoy my two years at my residency even if that meant tough work and long hours.

General location of the position. I wanted to stay close to home and my residency.

How many connections my potential employer has in the field.

I wanted to work at a university hospital.

Personal/location factors, program organization and structure, team personalities and environment, previous resident satisfaction.

Ranking of the school in the medical area.
Ability to conduct research was very important to me, as I plan to pursue a career at an academic medical center. I also valued highly the willingness of the faculty to work with me in regards to my unique background to best prepare me for board certification.

Program reputation
Organization of the residency
Size of the program
Location

Facilities

Location was a major factor for me.

The size of the program (and how long they had been running the program... I was looking for a place that had a lot of alumni who were in the field).

Also how organized the program seemed at the interview and also what people in the field said about the program/staff.

Family

The level of comfort I felt with the people.
Size of the program; diversity of treatments and tools.

Were there any other secondary factors that influenced how you ranked your residency choices? Please list them here.

Responses

- Expectations of residents regarding scut work.
- Location was very important. The location I went with was closer to my home and after my parents had health issues I decided being closer to home was important to me.
- The technology available at the site
  The research at the site
  Expectations for research by the resident

- Coverage of treatment modality

- People in the department

- The amount of interaction between the medical physics residents and the MD residents and/or other non-physics members of the radiation oncology team.

The size of the program: I had a preference toward having a co-resident, though this was not a
primary consideration.

The ratio of resident salary versus cost and quality of living.

- Research opportunities
- Location of residency, benefits, perceived likelihood of residency leading to full-time employment.
- Research opportunities during the residency.
  A larger scope of learning than just clinical radiation therapy.
- Physics team dynamic and personalities
- Location relative to where I’d like to live.
  Ratio of resident pay to cost-of-living.
  Costs in moving from my current location.
8. Considering all of your interviews across all institutions, what were the greatest positives you took away from your interviewing experience?

This can include any aspect of the interview process, such as experiences during interviews, communication with the residencies, and interactions with interviewers or other candidates.

Responses

- I actually enjoyed catered lunches because it showed that they were willing to put in the extra effort to attract us to their program.

  More of a conversation style interview then a Q&A session.

  I liked spending a longer time with interviewers to get to know them.

  Having interviewers not talk about physics and try to get to know me so I could get to know them.

  I liked having multiple days to interview.

  Having a chance to talk to other interviewees was nice.

- It was great to be able to talk to the current residents without anyone else around.

  It was great when we were given an overview presentation before the interviews started.

  I also appreciated when programs gave us something written about compensation/benefits, equipment, resident expectations. It made them look very organized, respectful of the candidates needs, and was very helpful for reminding me of the highlights of a specific program.

- Talking with the residents, visiting different departments and seeing their characteristics (size, program structure, organization, etc)

- Positives would include discussing my research with the interviewers, and learning about unique opportunities some programs would provide, such as classes in radiobiology or access to hyperthermia treatment.

- The greatest positive was the amount of presentations I had to do in front of people I didn't know. That was definitely stressful in the beginning but got easier the more I did it. I feel this definitely prepared me for a future job as a professor, and definitely makes it easier to give presentations at conferences. The questions asked and learning how to best answer them was another plus with the presentations.

  Another positive was meeting other candidates because in the future, we as medical physicists,
will definitely work much with each other in research and clinical meetings. Making new friends and having people to help us out is a good thing.

- Building friendship with future colleagues
- Broader perspective seeing different clinics, meeting many physicists, great practice presenting myself.
- Comparing the differences between programs
- Meeting so many interviewers and candidates
- Meeting many of the same candidates at the same interviews and sharing in the experience with them.
- Made a lot of connections and got a chance to see what other clinics/medical physicists do in terms of clinical work and research. Also, great to see the level of applicants as well.
- I really enjoyed conversing with people on both ends of the interviewing table. There was an immense amount of fascinating research to discuss in addition to peoples' passionate interest in the ability of physicists to aid in the improvement of public health.
- The greatest positives in the interviewing experience were the people, both faculty and other candidates. Visiting the clinics and seeing the departments at different institutions was another positive, and helped provide a better perspective of the field.
- The interactions were great, both with other candidates and with the interviewers. It was probably the first time I had an opportunity to get feedback from department managers, radiation oncologists, and educators of other disciplines, so their perspectives were good to hear from.
- Meeting other candidates and faculty at many places was very valuable for me. As a certificate student, I had not been in the field long and knew very few people in the field. Also, as a new entrant into the field, I learned almost as much about medical physics from the interviews as I had from my classes up to that point.
- I thought that it was important that the locations that I interviewed at weren't asking me Medical Physics academic questions because these were things I expected to be taught during residency. I think that prepping for the interview and knowing my interviewers' backgrounds is why I landed my residency.
- Some of the greatest interviews I went to provided options (day or time) for interviewing. I quite enjoyed the flexibility of giving us a choice from few select days to come out to interview. Actually a couple of my interviews were held on the weekend which made my life a bunch easier. Also holding morning or afternoon interviews helped me with scheduling my flights. Having full day interviews made it difficult to fly.
Holding presentations also helped me determine my program. Presentations helped me distinguish myself from other applicants. Though maybe they should just do 10 minute presentations instead of 45 minute ones.

Programs with multiple interviewers in the same room. I feel like it helps move things along if there are more interviewers. Also there is a lot less awkward silence.

Also since a lot of us paid for our own travels it was nice to get some free food!!!

- Meeting people in the area and experiencing the systems or facilities.
9. Again considering all of your interviews across all institutions, what negatives or difficulties did you experience during this process?

This can include any aspect of the interview process, such as organization of the interview day, experiences with individual interviewers, travel logistics, or communication with the residencies.

Responses

- A huge negative was how many of the interview days overlapped each other. This was a very stressful aspect of the interviews.

- I found the oral examination given at some interviews to be counterproductive to learning the culture of the group, thereby detracting from my opinion of those institutions.

- Travel expenses and scheduling.

- Unprepared and inexperienced programs with regards to the interview process and/or the entire residency program.

  Travel difficulties.

- The interference of so much travel with my classes was problematic. I hardly went to class in February, and my learning was at the minimum acceptable level.

  The observance of match rules was spotty. One interviewer explicitly asked me how I was going to rank his program, and told me that I was going to be their first choice. This was also a lie, as I was not ranked first, or else I would have been matched there (I ranked them first).

- The worst situations were when we weren't given accurate information about the length of the interview days early enough to optimize travel arrangements. When institutions said an interview day would go longer than it actually did, I was frustrated because I could have flown out that night if I had known and saved the hotel cost and seen my family.

- The logistics, time commitment, and cost of scheduling interviews and arranging travel were by far the most difficult and stressful part of the interview process. Trying to schedule interviews, particularly when interview offers and interview dates could fall on any day in a multiple-month timeframe, took a massive amount of time. The time spent making travel arrangements and corresponding with residencies to set and reschedule dates was many times over the amount of time I actually spent on application and interview preparation.

  On the interviewing side, I had a small number of interviewing experiences that could have been better, primarily from interviewers who were inattentive or somewhat unfriendly. When most interviewing experiences are overwhelmingly positive, even minor negatives can impact impressions of a program and affect ranking.
One of the main issues comes from traveling. Places that hold full day interviews made it difficult for applicants to fly.

Institutions who chose to torment the applicants by a barrage of technical questions. I get that you want to know what the applicant knows, but one location I went to chose to only ask technical questions. Also don’t be hostile if an applicant doesn’t know the answer.

Logistics

Some of the interviewers were extremely technical in their questioning. After recounting one experience my mentor observed that it was more like an ABR part 3 exam than an interview for residency. That was difficult, but I learned a lot from the process and felt better prepared for my subsequent interviews.

I had a few times where I had a hard time understanding what I was being asked because of language or when on the phone because of miscommunication.

Traveling in the winter was a big minus. Interviews cost a lot of money. Some institutions residency structure wasn’t as described, i.e. they were a 3-year program instead of 2-year as advertised.

It was just so expensive.

The large range of responses from programs made it hard to schedule your residencies.

Overall limited communication from programs. I would have at least like to have been notified that I was declined or made it to another stage.

Some programs did not give any overview of their program or department, but just interviewed us. Some interviewers didn’t ask any questions to the candidates at all.

Financial expense, travel time away from research, some interviews were much less structured and time efficient.

Travel arrangements, variable response times from programs, variable times between the response time and the interview date, difficulty in scheduling flights last-minute, cost of flights.
10. How do you feel the interviewing and/or matching process could be improved?

- Improved education on how the match works and its rules. Many faculty and students alike did not seem to understand it.

- They should not allow the ranking of residencies that one did not interview at. It detracts from the usefulness of statistical analysis of the match results.

- There were some programs that from the beginning were rumored to only accept their own candidates. This rumor turned out to be true when the results were announced. I think it was the waste of time and money of the other candidates to be invited to the interviews.

- It must be improved in terms of interview date. The interview time is exactly when we should focus on finalizing our dissertations.

- Better regional coordination (e.g. all west-coast schools have their interviews in one time frame), better organization for response time (giving candidates enough time to schedule flights, also knowing when certain schools will be getting back to them)

- Provide funding for interviews

- Spread out the interview time

- Coordination between residencies on when interview offers will be released and when interviews will be scheduled. Having regional residency interviews within given blocks of time, and with coordination to prevent scheduling conflicts within these time blocks, could help immensely in lowering the cost of interviewing and preventing a lot of the travel and scheduling difficulties faced by applicants this time around.

- I'm not sure at this point.

- It would be wonderful if programs could coordinate a little more so that programs in the same geographic location interviewed back to back (to save on travel costs). (I know this isn’t easy to do, but it would have enabled me to take more interviews).

> When programs only offer one interview day, it was really hard to make that day work. If those programs could offer even one more interviewing day, that would be very helpful.

- I think that applications should include a fee. There were a vast number of applicants this year and many programs were overwhelmed as a result. In time, maybe it would be best to additionally include a time limit between year of finishing training and ability to apply for a residency. This might save time for programs as it would give them more time to focus on relevant candidates.
● Have more communication between residencies based on location to make traveling and cost easier on the applicants when scheduling interviews.

Have more communication with the interviewees.

● Suggestions:
  ○ Hosting regional interviews for certain week/weeks: Maybe the Northeast region can interview during the end of January. Something to require less traveling.
  ○ Regions with different institutions in the match system can hold interviews in a specific place together.

● I think if the institutions are willing to interview 10+ candidates, they should consider partially reimbursing the travel cost. I was indecisive of going to my interviews after 7+ good interviews. Why spend so much money if I’m confident I’ll get into one program?

● I don't have a specific plan but an idea could be to have dates where if one institution chooses that day, no other institution can have interviews on that same day. That would definitely reduce overlapping interview schedules. There are probably flaws with this idea, but if there could be something done to prevent interview date overlapping, applicants can expand their options and see what's out there; same for the institutions. Or maybe institutions could be more flexible with the applicant's schedule.

● Coordination of interview schedules (less overlapping, regional coordination to reduce required travel, perhaps spread them out more), funding for travel, publicize salary and benefits offered.

● The interview process must be improved by many programs. Better communication and planning for the phone and on-site interview days. Programs must respect the candidate's time and effort.

● All of the institutions seemed to be highly qualified to train good physicists, actually most of them almost seemed overqualified for training good physicists. A few more residencies would be nice for the other 4/5 students getting the same education as the top candidates.
11. On a scale of 1 to 5, how satisfied were you with the match process and results?

Responses: 18/18

<table>
<thead>
<tr>
<th># Respondents</th>
<th>Completely Unsatisfied</th>
<th>Neutral</th>
<th>Completely Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

Any comments on satisfaction with the match process and results?

Responses: 5/18

- I like the match process. I don't like that so many intelligent students are going in debt, can't get interviews for a residency, and can't even land a job that at least uses part of their training.
- I matched with my top choice so I am quite satisfied.
- I felt the match process was a very effective way to best place applicants at institutions that liked them.
- If there was a fee or individual application materials needed for application of the programs, I believe that would significantly decrease unnecessary number of applications (i.e., applying to a program even if I don't like and don't want to go to).
- I think it is a great thing, giving maximum power to applicants while removing stress and gamesmanship. The only big problem was violations of match rules in comments and questions by faculty.
12. Is there any other feedback on the residency application or match process that you would like to share with SDAMPP?

- According to Natmatch, only 46% of applicants were considered for residencies, and 30.3% withdrew or didn't submit, which likely means they couldn't get a single interview to qualify for the match. Of the 402 applicants registered, over 70% did not get placed into residencies. There may be 30~40 PhDs/Postdocs who can delay or avoid residency, but they're an exception and not the rule.

Those numbers are not a success story, and they're not headed in the right direction. From this point onward, every year this happens the candidate pool will get larger. There may be a gray area between education and exploitation, but these graduates did not find jobs relevant to their degrees, and most of them won't find them next year, either.

- Some of the information was inconsistent and programs were not good about providing professional feedback about application status. As a result, many applications disappeared into the ether, and that was frustrating after spending so much time on them.

- Would it be possible to find out where you're getting interviews within a shorter time frame? It was hard (and expensive) to keep changing flight reservations as new interview offers arose.

- There's not a lot of room to attach more documents that applicants might think are helpful such as additional letters of recommendation, etc. Also, it would be helpful if you could have a user interface to allow applicants to track applications through the site such as when staff receives application, interview received, personal rankings or thoughts and a preliminary ranking that is all on the RAP site. This would also help obtain match statistics.

- The MP-RAP has some flaws in the automated document preparation which can force incorrect statements or unprofessional-looking contradictions into applications. These include:

  "Are you an AAPM member?"
  If a student changes from a non-member to a member while working on the application, it still says "no", and they then have to add the AAPM as an "other" organization. This looks deeply unprofessional. The web page gives a programming reason for this, but I find that unsatisfactory. It made me look unprofessional.

  "Have you completed a CAMPEP accredited medical physics graduate program"
  Is automatically filled in as "yes" even if I am merely in the process of completing such a program. This needs to be reworded to be inclusive of current students. This problem can make me appear to be misrepresenting myself.
In general, I don’t think any field should exist which does not just reproduce exactly what an applicant has entered.

- Maybe combine both the application and match process information onto one website instead of having to go to two different ones. Not a big deal, but that would definitely make it a little easier when filling out the application and seeing the matching rules and information.

- The residency contracts are very different from institute to institute. Some programs match the benefits and salaries of the Medical Physics Residency to other Medical Residencies. There should be some guidelines about the minimum salary level, type of contract, working responsibilities and training objectives to assure that all residents are treated fairly and similarly. I suggest that the Residents create their own association to discuss and enhance their training objectives and support their occupational society.

- Thank you for making improvements and implementing the match system!

**Acknowledgements**

Many thanks go out to all of my fellow first year residents who took the time out of their busy second week of residency in order to respond to this poll. As the first cohort of medical physics residents to go through the MedPhys Match, we’re in a unique position to be able to provide feedback on the MedPhys Match to help improve the application process for future applicants, and I truly appreciate SDAMPP’s attention toward and interest in our opinion and input. I would also like to thank Amy Harrison for inviting me to present the applicants’ perspective on the residency applications and MedPhys Match to SDAMPP, and to Anna Rodrigues for recommending me for the role.

_Titania Juang, PhD_

_Medical Physics Resident_

_Stanford University_

_titania@stanford.edu_

7/11/2015
What Happens When There’s no Match??

• Bruce Libby, PhD
• Director of Clinical Physics Residency
• University of Virginia
“It could be worse, it could be raining”
Things not to do right away

- Panic
- Answer e-mails from applicants
- Answer phone calls from applicants
- Review the entire list of candidates who did not match
- Conduct a post mortem of why you did not match
Things to do

• Answer e-mails from fellow directors/friends
• Answer phone calls from fellow directors/friends
• Eric Klein called me and said “how did you not match, you have a strong program

Oh, and by the way, I have a grad student that didn’t match”
Things to do

- Set a time line of when you want a second review done (1 week)
- Review applicants to your program who did not match - did any “strong” candidates fall through the cracks
- Review referred applicants who did not originally apply, find out why they did not apply in the first place
- Create a new list of candidates
Things to do

• Skype with the new list
• Narrow to 1-???? candidates
• Conduct second skype interview with the narrow list to create a ranked list
• Visit by top candidate(s)
• Make offer
Thoughts for next year

- Was it something we did or did not do that caused us to not match?
- Did we rank the “right” candidates?
- 5 of 10 candidates we ranked wound up at 3-year programs
- Do we need to rank more candidates?
- Ranked 10, average was 8
- At least 75% of those 10 ranked us
More thoughts for next year

• Can we take advantage of not matching?
• Not matching you get to pick the candidate (would we have ranked the person we wound up with?)
The Society of Directors of Academic Medical Physics Programs

Annual Meeting 2015, Anaheim, California
Annual Meeting 2015, Anaheim, California
Beyond The Residency Match: Options and Strategies for Next Steps

Robert J. Pizzutiello, MS, Facr, FAAPM, FACMP
Residency Program Director, Upstate Medical Physics, PC
Senior Vice President, Imaging Physics
LANDAUER Medical Physics
March 30, 2015
GoToWebinar
Tools to Help You Participate

3/30/2015 Webinar Stats
218 registered
140 attended
(several program directors, many in the room)
High “interest rating”

https://attendee.gotowebinar.com/recording/6843406916021867778
**Webinars for Job Seekers**

AAPM offers webinars geared towards assisting scientists and engineers in their career development. Please see below a list of upcoming events as well as links to the recorded versions of previous webinars.

### Recorded Webinars

**I'm About to Graduate – What on Earth Do I Do Now? 10 things you can do NOW to get a job and move your career forward**

Whether you started career planning and job searching a year ago, a month ago or today, there are a few things you can do to get the ball rolling to land a job you enjoy. Number 1: Don't Panic! It's never too late to launch a thoughtful strategy designed to land you employment. Number 2: Know you are valuable in myriad industries and ecosystems. In this webinar, you will learn specific tasks you can do RIGHT NOW to get a job and advance in your career. You will emerge with a solid and strategic plan that you can adapt at any stage of your career, but is especially valuable for those who are about to graduate or finish their postdoc and haven't lined up a position yet. And perhaps equally important, you will leave the webinar feeling more confident and excited about what your near (and far) future holds for you.

**Beyond the Residency Match: Options and Strategies for Next Steps**

You didn't find a residency match. What now? Is life over? Certainly not! It is time to take a moment to catch your breath. Pick yourself up, dust yourself off, and allow years of collective professional experience help guide you in a successful direction.

*This presentation is provided courtesy of Bob Pizzutiello and Landauer. AAPM is not responsible for the content of this presentation.*
Disclosures

• Founder and President, Upstate Medical Physics and UMP Residency Program
• Sr. VP, Landauer Medical Physics
• Currently considering adding intern positions
• Member SDAMPP Board of Directors

Disclaimer

Comments are my own, based on my personal experience with residents and medical physics departments/practices
Goal for these 20 minutes

- Provide an overview of the presentation
- Motivate discussion among program directors about the value of these “soft skills”
- Encourage program directors to share resources, perhaps through the SDAMPP Outreach Committee
Outline

- Is not-matching a “Failure?”
- Professional Strategic Plan (reference)
  - Re-assess professional goals, current needs
  - SWOT analysis
  - Tactics to get from here to there
- Alternative options for medical physics employment (long- and short-term)
- How to seek and find the right job?
- How can prospective employers help?
- Next steps
Failure or CheckPoint?
MedPhys Match Update

John P. Gibbons, Jr., Ph.D.
Department of Radiation Oncology
Ochsner Health System
New Orleans, LA
Resident Recruitment
National Statistics

Medical Physics Residency Application Program (MP-RAP)

MEDICAL PHYSICS RESIDENCY APPLICATION PROGRAM (MP-RAP)

MP-RAP FAQ for Programs (updated 11/03/2014)

What is the MP-RAP?
The Medical Physics Residency Application Program (MP-RAP) is a program started by the AAPM Workgroup for Coordination of Medical Physics Residency Programs (WGCMRP) to do the following,

- Make it easier for applicants to apply for residency programs.
- Reduce administrative burden for residency programs that have to process these applications.

What are the browser requirements?

What is the application file shows up as a single blank page. How do I view it?

I am an AAPM member. Can I just use my AAPM login information for the MP-RAP?

I am already registered in the MP-RAP. Do I have to register again?

I registered but did not receive my activation email. Can you help me?

How do I get my program listed in the MP-RAP?

I placed my ad on the AAPM careers site. Why is my program not listed in the MP-RAP?

I have registered as an institution and paid the fee. Is there anything else I need to do?
Resident Recruitment
MP-RAP Statistics (2015)

• Institutions: 75 Programs participated
  • Programs received 16 – 274 applications
    • 16 is for one program that opened 3/6/15. Excluding this, the range is 46-274.
    • A few imaging programs received ~50 applications
  • 31 Tracks received > 150 applications.

• Applicants: 318 unique applicants
  • Total of 10146 applications (average of 32 applications/applicant).
Collaborating to Bring a Unique Solution


• Institutions: 76 Programs participated, 87 tracks, 107 positions
  • 66 Therapy Programs; 10 imaging programs
  • 68 CAMPEP-accredited; 8 Non-accredited
  • All programs participated in MP-RAP

• Applicants: 400 unique applicants

• Accredited Therapy Programs
  • 61/79 Accredited Therapy Programs participating
  • Of the 18 non-participating programs
    • 9 are outside the US (2 Canadian programs are participating)
    • 2 are affiliated with graduate programs
    • 3 do not have positions in 2015
  • 59/63 of US programs taking applicants are in the match

• Accredited Imaging Programs
  • 8/11 Accredited Imaging Programs participating
  • One Canadian program not participating

• Total US Program Participation: 67/73 (92%)
Outline

• Is not-matching a “Failure?”

• Professional Strategic Plan (reference)
  – Re-assess professional goals, current needs
  – SWOT analysis
  – Tactics to get from here to there

• Alternative options for medical physics employment (long- and short-term)
• How to seek and find the right job?
• How can prospective employers help?
• Next steps
What is Strategic Planning?

The process of defining

- **Who I am as a professional?**
- **Goals:** What do I want to accomplish?
- **Strategies:** How can I direct my energies and resources toward accomplishing these goals
- **Time frame:** look ahead 3-5 years
  - 10 years, with much larger error bars
Elements of Strategic Plan

• Vision Statement
  – Do you have a vision for your future?

• Mission Statement
  – Why am I here?

• SWOT Analysis
  – Defines you in relation to environment

• Goals (Strategic issues)
  – 3-4 Broad goals

• Strategies to achieve Goals
  – Several specifics for each Goal
“What would I do with a Strategic Plan?”

• Guide your decisions and priorities
  – We will always have more desires than resources
• Enable you to grow, change and succeed
  – Now and in the future
• Move from Helplessness to Empowerment
  – Moving on the road to achieving goals is better than
  – Kicking the flat tire, which only really hurts your toe!
• Re-assess and update every few years
Start by asking yourself these tough questions

1. How do I define my identity?
2. What work style is best for me?
3. What is my risk tolerance?
4. What environment do I prefer?
5. What are my personal goals?
1. How do I define my identity?
   • Personal
   • Professional
   • Family
   • Community
   • Individual vs. in relationship with others, environment
## Professional Goals

**Ask yourself these tough questions**

### 2. What work style is best for you?

<table>
<thead>
<tr>
<th>Solitary</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused</td>
<td>Multi-task</td>
</tr>
<tr>
<td>Research</td>
<td>Clinical</td>
</tr>
<tr>
<td>Therapy</td>
<td>Imaging</td>
</tr>
<tr>
<td>Single location, consistent people, places</td>
<td>Multiple locations, varied people, places</td>
</tr>
<tr>
<td>Large organization</td>
<td>Small Organization</td>
</tr>
<tr>
<td>Importance of Rewards</td>
<td>$, personal, professional</td>
</tr>
<tr>
<td>Not-for-profit</td>
<td>For profit business</td>
</tr>
<tr>
<td>Hi energy/stress</td>
<td>Moderate pace</td>
</tr>
</tbody>
</table>
3. What is your risk tolerance?

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular paycheck</td>
<td>Entrepreneur</td>
</tr>
<tr>
<td>Large, established institution</td>
<td>Small group</td>
</tr>
<tr>
<td>Government</td>
<td>Start-up company</td>
</tr>
<tr>
<td>Single location, consistent people, places</td>
<td>Travel, multiple locations, varied people, places</td>
</tr>
<tr>
<td>Not-for-profit</td>
<td>For profit business</td>
</tr>
<tr>
<td>Moderate pace</td>
<td>Hi energy/stress</td>
</tr>
</tbody>
</table>
## Professional Goals
*(Myers-Briggs may be helpful)*

### 4. What environment do you prefer?

<table>
<thead>
<tr>
<th>Structured</th>
<th>Flexible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular hours, parking space</td>
<td>Flexible schedule</td>
</tr>
<tr>
<td>Well defined tasks, measures of success</td>
<td>General approach or outcomes</td>
</tr>
<tr>
<td>Predictable salary/benefits</td>
<td>Salary plus incentive compensation</td>
</tr>
<tr>
<td>Clear chain of command</td>
<td>Distributed, consensus or amorphous authority</td>
</tr>
<tr>
<td>Strong leader</td>
<td>Consensus leadership</td>
</tr>
<tr>
<td>Established SOP</td>
<td>Create new approaches</td>
</tr>
</tbody>
</table>
## Personal Goals

### 5. What is my personal mission in life?

<table>
<thead>
<tr>
<th>Personal reputation</th>
<th>National reputation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications</td>
<td>Wealth</td>
</tr>
<tr>
<td>Innovation</td>
<td>Consistency</td>
</tr>
<tr>
<td>Work-life balance</td>
<td>Relationships: Spouse, Children</td>
</tr>
<tr>
<td>Travel</td>
<td>Leisure activities (sports, music, art, theater, outdoor,</td>
</tr>
<tr>
<td>Community service</td>
<td>Make a difference</td>
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</tbody>
</table>
## Personal Goals

<table>
<thead>
<tr>
<th>Category</th>
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</thead>
<tbody>
<tr>
<td>Geography</td>
<td>City/Suburb/Rural</td>
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<tr>
<td>Financial</td>
<td>School loans</td>
</tr>
<tr>
<td>Further education</td>
<td>Medical Physics, MBA, MD, JD, other?</td>
</tr>
<tr>
<td>Socialization at work</td>
<td>Commuting time, mode of travel</td>
</tr>
<tr>
<td>Cultural options</td>
<td>Recreation (Mountains, ocean, lakes, pro sports)</td>
</tr>
<tr>
<td>Variety of social events, gathering</td>
<td>Location to raise a family or care for parents</td>
</tr>
<tr>
<td>spots</td>
<td></td>
</tr>
<tr>
<td>Own a car, home</td>
<td>Apartment, condo, travel</td>
</tr>
</tbody>
</table>
SWOT Analysis
Identify all positive/negative elements that may affect proposed actions

A. What are my major *internal* or present
   - Strengths
   - Weaknesses

B. What are the relevant major *external*
   - Opportunities
   - Threats (Challenges)

http://www.businessnewsdaily.com/4245-swot-analysis.html
**Internal: Your Strengths – Weaknesses**

*Be Brutally honest!*

**Strengths**

- What are your assets?
- Which asset is strongest?
- What differentiates you from others?
- What unique skills do you have?
- What unique or formative experiences have you had?

**Weaknesses**

- What areas do you need to improve on?
- What necessary expertise do you currently lack?
- Do you have adequate cash flow to maintain lifestyle?
- Do you have a well of new ideas, or are you stuck in a rut?

A *mentor* may provide helpful objectivity
**External: Opportunities - Threats**

**Opportunities**

- What external changes present interesting opportunities?
- What trends might impact your professional life?
- Are there other talents you might be able to acquire?
- Is there an unmet need you can fulfill?
- Are there other work models that might fit?

**Threats**

- Is the market tight?
- Are others better equipped to for limited positions?
- Are you improving your chances of success each year?
- Do you have to rely on others to achieve your goals?
WHAT COLOR IS YOUR PARACHUTE?
2015
A PRACTICAL MANUAL FOR JOB-HUNTERS AND CAREER-CHANGERS
REVISED AND UPDATED ANNUALLY
RICHARD N. BOLLES
One of the All-TIME 100 Best Nonfiction Books —TIME
“Since 2008, the average number of people applying for any given job has been 118.”

“When you are facing, let us say, nineteen other competitors for the job you want—equally experienced, equally skilled you will stand out because you can accurately describe to employers exactly what is unique about you, and what you bring to the table that the others do not.”

Appendix A

Finding Your Mission in Life

Introduction to Finding Your Mission in Life
Mission

“a continuing task or responsibility that one is destined or fitted to do, or specially called upon to undertake”

Comment 4: Mission as Intersection

• The kind of work
  a) that you need most to do, and
  b) the world most needs to have done.

• Seek the place where your deep gladness and the world’s deep hunger meet.”

Outline

• Is not-matching a “Failure?”
• Professional Strategic Plan (reference)
  – Re-assess professional goals, current needs
  – SWOT analysis
  – Tactics to get from here to there
• Alternative options for medical physics employment (long- and short-term)
• How to seek and find the right job?
• How can prospective employers help?
• Next steps
Traditional Medical Physics Employment Model

- FTE, University
- FTE, Hospital
- FTE, Government Agency

About Mayo Clinic

Mayo Clinic is a nonprofit worldwide leader in medical care, research and education for people from all walks of life.

Saint Francis Medical Center

Ronald Reagan UCLA Medical Center

COMMISSIONED CORPS OF THE U.S. PUBLIC HEALTH SERVICE
America’s Health Responders
Alternative Medical Physics Employment Models

- **Entrepreneur (Owner or partner)**
  - Service: Private practice MP group
  - Product:
    - Mackie (TomoTherapy)
    - Ning (Koning Breast CBCT)

- **Industry**
  - Big players (GE, Philips, Siemens, Varian, etc.)
  - Start-up medical technology companies in your area…

- **Regulatory**
  - FDA (Uniform Public Health Service), NRC, OSHA
  - State Radiation Control Agencies (CDCPD.org)

- **Health Physics, MR Scientist, Radiopharmacy**
What benefits would you derive from an interim job (Internship)?

• Help you stand out for Residency next year
  – Experience relevant to Medical Physics
  – Letter of recommendation from someone who is not your professor (work experience)

• Exposure to
  – New ideas that might capture your interest
  – Different work environments
  – Different people

• Tuition benefits, postpone loan payments?
• Salary?
• Health insurance?
What value can you bring to a prospective employer?

- Unique skills and capabilities
  - Your degree is not by itself “value”
- Energy and passion
- Time to devote to projects
- Ability to teach yourself
- Relatively inexpensive labor
What **skills** can you bring to a prospective employer?

- Understanding complex subjects
  - Radiation, Health Care

- Communicating these complex subjects
  - Marketing, sales of products
  - Marketing communication for hospitals, imaging or therapy centers
  - Social Media

- Technology to add productivity/capability
  - Programming
  - Apps for mobile devices

- Youthful energy, web experience
Can you articulate how you can add value to organization?

- Once you identify what you bring to the table, can you clearly explain it?
- Healthcare is changing, continuously
- How will public data availability affect providers?
- How are social media, Apps for mobile devices, etc. affecting Medical Physics, Radiology and Radiation Oncology services?
- Is there a role you can play?
Do I want a Residency or a job?

- ABR Certification requires residency
  - Unless you entered the system <2014
- Most Clinical jobs will likely require Board Cert
  - AAPM Definition of QMP
  - But most states do not require Board Certification
- Industry, Regulatory jobs may not
- ABR now offers flexibility for the future
  - You never know what life has in store…
- “Since I didn’t Match now, can I find a job consistent with my Strategic Plan (good use of my time and talents)?”
Is an internship an alternative?

• Many people gain experience through internships
• Some are paid, others are unpaid
• Typically time-limited (e.g., summer, 1 year)
• Internship might help you Match next year
  – Shows motivation and creativity
  – New experiences and stories to tell
• Understand insurance/liability issues
• Supervision (May 2015 JACMP)
  – AAPM Medical Physics Practice Guideline 3.a: Levels of supervision for medical physicists in clinical training
Between now and next year’s Match (or your next residency interview)

- Remain positive
- Use this as a learning, growth experience
  - Tell that story next year!
- Use time to create Strategic Plan
- Work on SWOT analysis
- Pick one or two weaknesses, set goals and achieve improvement
  - New software proficiency
  - Communication skills (written, verbal)
  - Interviewing skills
Remember, life is not a drag race

• The journey is rarely a straight line
  – (ask older folks to hear different stories)
• There is no prize for being first
  – The real prize is appreciating the experience
• Don't avoid what is uncomfortable
  – These are probably best areas to improve
• Think of the toddler who falls
  – They just get up and try again
  – We have all done that (at least at 2 years old)
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Thank you!

Time for Q&A

Please submit your questions through the webinar feature
Review Goals for these 20 minutes

- Provide an overview of the presentation
- Motivate discussion among program directors about the value of these “soft skills”
- Encourage program directors to share resources, perhaps through the SDAMPP Outreach Committee