

Imminent changes in the NIH grant
submission and review process

The impact from an applicant's point of view

Harald Paganetti PhD

Director of Physics Research
Department of Radiation Oncology





Changes in submission and review



**Only one resubmission
(amendment)**



**January 2009 (not for
applications
submitted previously)**



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Only one resubmission (amendment)

Motivation for NIH

- Previously, more and more awards came after at least 2 submissions (average number of submissions per application is increasing)
- Fund good research earlier
- Less burden on reviewers



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Only one resubmission (amendment)

Potential Impact

- Quicker turnaround (+)
- More carefully written applications? (+)
- Fewer different reviewers (-)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Changes in submission and review



Scoring system



May 2009



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Scoring system

Motivation for NIH

- Too many rating discriminations suggests unrealistically high precision



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Scoring system

Potential Impact

- Increased likelihood for identical scores among applications (might require NIH internal decisions not driven by scientific merit) (-)
- Transition period will have old (resubmitted) grants on old system and new grants on new system raising issue of fair review (-)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Changes in submission and review



Summary statement



May 2009



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Summary statement

Motivation for NIH

- More emphasis on impact and less emphasis on technical details
- Succinct, well-focused critiques that evaluate, rather than describe, applications
- Bullet lists of major strengths and weaknesses (easier for reviewer and applicants)





Summary statement

Potential Impact

- More feedback (criteria scores) for lower half applications will help resubmission (+)
- Overall score plus criteria scores for discussed applications will help (potential) resubmission (+)





Summary statement

Potential Impact

- Critique might be unclear to the applicant due to short (bullet list) sentences (-)
- Not changed: With the big emphasize on investigator and environment, are we supporting established groups at big institutions favorably? (-)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Changes in submission and review



New/early investigator



February 2009 (may depends on grant mechanism)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



New/early investigator

Motivation for NIH

- Duration of postdoctoral training is increasing
- Average NI age is increasing
- Small number of R21 lead to R01; R21 success rate is lower than R01; R21 limited scope may not be ideal to launch research career



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



New/early investigator

Potential Impact

- Increases chances of new investigators (+)
- Less competition between new and established investigators during review process (+)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



New/early investigator

Potential Impact

- In general: What is NIH's mission (funding more NI) versus trend in the field (more full time researchers)? (+-)
- Why does NIH encourage RO1 for new investigators (R21 needs less preliminary data)? (-)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Changes in submission and review



Shorter applications



January 2010



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Shorter applications

Motivation for NIH

- Less burden for the reviewers
- Less work for the applicants



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL



Shorter applications

Potential Impact

- Applicants will most likely shorten the Background and Significance section, referring to peer-reviewed literature.
 - Saves time when writing applications (+)
 - Makes the peer-review process more difficult for reviewers (-)
- Re-alignment of the application sections with the review criteria.
 - Can make applications more sound (+)
 - Helps to identify strengths and weaknesses (+)





Shorter applications

Potential Impact

- Hopefully (?) the emphasize is going to be on new ideas instead of methodology (+)



MASSACHUSETTS
GENERAL HOSPITAL

CANCER CENTER



HARVARD
MEDICAL SCHOOL