

So You're Applying for a GEMSSTAR
Thursday, October 15, 3:30-5:00 PM EST

Workshop Schedule

Time	Title	Speaker
3:30 pm	The Big Picture: NIA Overview, Who's Who, Grant Lifecycle	Moderator: Lyndon Joseph, Ph.D <i>Program Officer (PO), Division of Geriatrics and Clinical Gerontology</i> Sue Ziemann, M.D., Ph.D. <i>Program Officer (PO), Division of Geriatrics and Clinical Gerontology</i>
	The Details: Tips on Specific Aims Pages and Resubmissions	Janine Simmons, M.D., Ph.D. <i>PO, Division of Behavioral and Social Research</i>
3:45 pm	Q&A	All
4:00 pm	Crafting a Professional Development Plan	Basil Eldadah, M.D., Ph.D <i>PO, Division of Geriatrics and Clinical Gerontology</i>
	The Enigmatic Review Process	Isis Mikhail, M.D., Ph.D. <i>SRO, Division of Extramural Activities</i>
4:15 pm	Q&A	All
4:30 pm	Help! Research Resources from the NIA and Beyond	Molly Wagster, Ph.D. <i>PO, Division of Neuroscience</i>
	Working with your Program Officer	Sue Ziemann, M.D., Ph.D. <i>PO, Division of Geriatrics and Clinical Gerontology</i>
4:45-5:00 pm	Q&A	All

So... You're Applying for a GEMSSTAR

Susan Zieman, M.D., Ph.D.

Medical Officer, Geriatrics Branch

Division of Geriatrics and Clinical Gerontology, NIA, NIH

GEMSSTAR Webinar 10/15/20

Title	Name	Division
The Big Picture: NIA/NIH, Who's Who	Sue Zieman	Geriatrics and Clinical Gerontology
Tips on Specific Aims and Resubmissions	Janine Simmons	Behavioral and Social Research
Crafting a PDP	Basil Eldadah	Geriatrics and Clinical Gerontology
The Enigmatic Review Process	Isis Mikhail	Extramural Activities
Research Resources and Tools	Molly Wagster	Neuroscience
Working with your PO	Sue Zieman	Geriatrics and Clinical Gerontology

About Today's Webinar:

- ▶ **Goal - to provide guidance, tips and resources** for early career investigators applying for the Grants for Early Medical and Surgical Specialists' Transition to Aging Research (GEMSSTAR) **RFA-AG-21-023** RECEIPT DATE: **11/13/20**
 - ▶ **Overview on NIA/NIH and helpful tips**
- ▶ Sponsored by NIA, the **Clin-STAR Coordinating Center** (AFAR) and the **American Geriatrics Society** (AGS)
- ▶ Session will be recorded and archived
- ▶ Please send questions through the chat and we will address them during the Q&A sessions
- ▶ Please visit the **GEMSSTAR FAQ Website**
- ▶ Please send all communications to NIA about GEMSSTAR to the GEMSSTAR Email (**NIAGEMSSTAR@mail.nih.gov**)
- ▶ Thank you for attending!

Overview of the NIH

Who are we?

- ▶ NIH is made up of 27 institutes and centers (ICs)
 - ▶ Most have Intramural and Extramural Programs
- ▶ ICs award >80% of the NIH budget each year
 - ▶ Minimal budget to support staff
- ▶ Each IC has a budget and a director, and typically their own review for early career/training awards and RFA (like GEMSSTAR)
- ▶ The Center for Scientific Research oversees triage and review of most applications



Know Your Funder!

NIA's MISSION

- ▶ Support and conduct genetic, biological, clinical, behavioral, social, and economic **research** on aging.
 - ▶ *Aging processes*, How do aging-associated changes in physiology affect predisposition to, and outcome from, specific diseases and conditions and their combination? (Across the entire lifespan)
 - ▶ *Conditions of aging*, What are the optimal strategies for diagnosing and managing age-related diseases and conditions along with comorbidities?
 - ▶ *Needs/care of aged* How do entities such as comorbidity, polypharmacy, and geriatric syndromes (e.g. frailty, sarcopenia, vascular stiffness) affect the care and procedural risk of older adults?
- ▶ Foster the **development** of research and clinician scientists in aging.
- ▶ Provide research **resources**.
- ▶ **Disseminate information** about aging and advances in research **to the public**, health care professionals, and the scientific community, among a variety of audiences.

<https://www.nia.nih.gov/about/mission>

The National Institute on Aging:

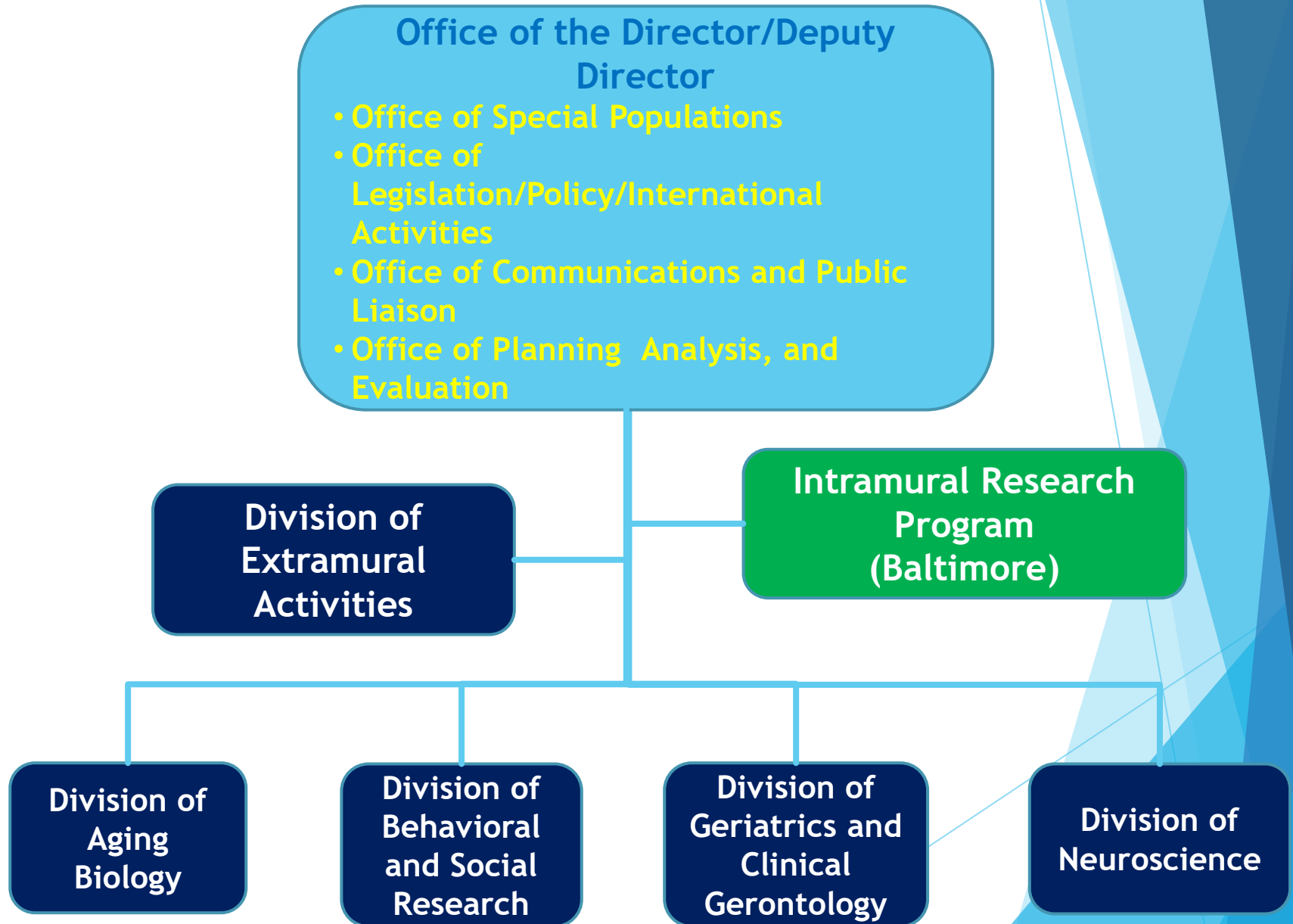
Strategic Directions for Research, 2020-2025



ONLINE ONLY

<https://www.nia.nih.gov/about/aging-strategic-directions-research>

NIA Organizational Structure



Who's Who and What do We Do?

WHO	WHAT	WHEN
Program Officers	Create, advise, promote, administer grants. THEY DO NOT PLAY A ROLE IN REVIEW except to listen when we can!! Each PO has a portfolio based on expertise (web). We divide and conquer- SAME ADVICE. Review summary statements with applicant. Participate in U13 conferences. Review progress reports.	BEFORE grant submitted, AFTER summary statement released. Ideas, review aims, ask about mechanisms. When you run into trouble or have Qs. Promote research.
Scientific Review Officer	Set up and run peer review. Release summary statements.	Call after submitted until SS released.
Grant Management Officer	Administer grant funds, request documentation, Just in Time Documents	Questions about budget, grant documents, JIT info.

Ponder Your Current Situation and Your Ideal Journey Ahead.....

- ▶ Ideal Day
- ▶ Research Trajectory
 - ▶ Significance of each part
- ▶ Skill, Training Trajectory
- ▶ Mentoring
- ▶ Resources
- ▶ Know academic currency
- ▶ Know how to say yes and no
- ▶ Reexamine journey frequently and adjust
- ▶ Training, mentorship
- ▶ Protected Time
- ▶ Resources (lab, infrastructure)
- ▶ Realistic Budget/time to perform the RIGHT Study
- ▶ Don't try to play the system, let the system work for you
 - ▶ Don't fit your research into an FOA, find the FOA to fund your research
- ▶ Look for synergy w clinical career, collaboration, leverage resources, multiple funding
- ▶ **Discuss with your mentor, and PO**

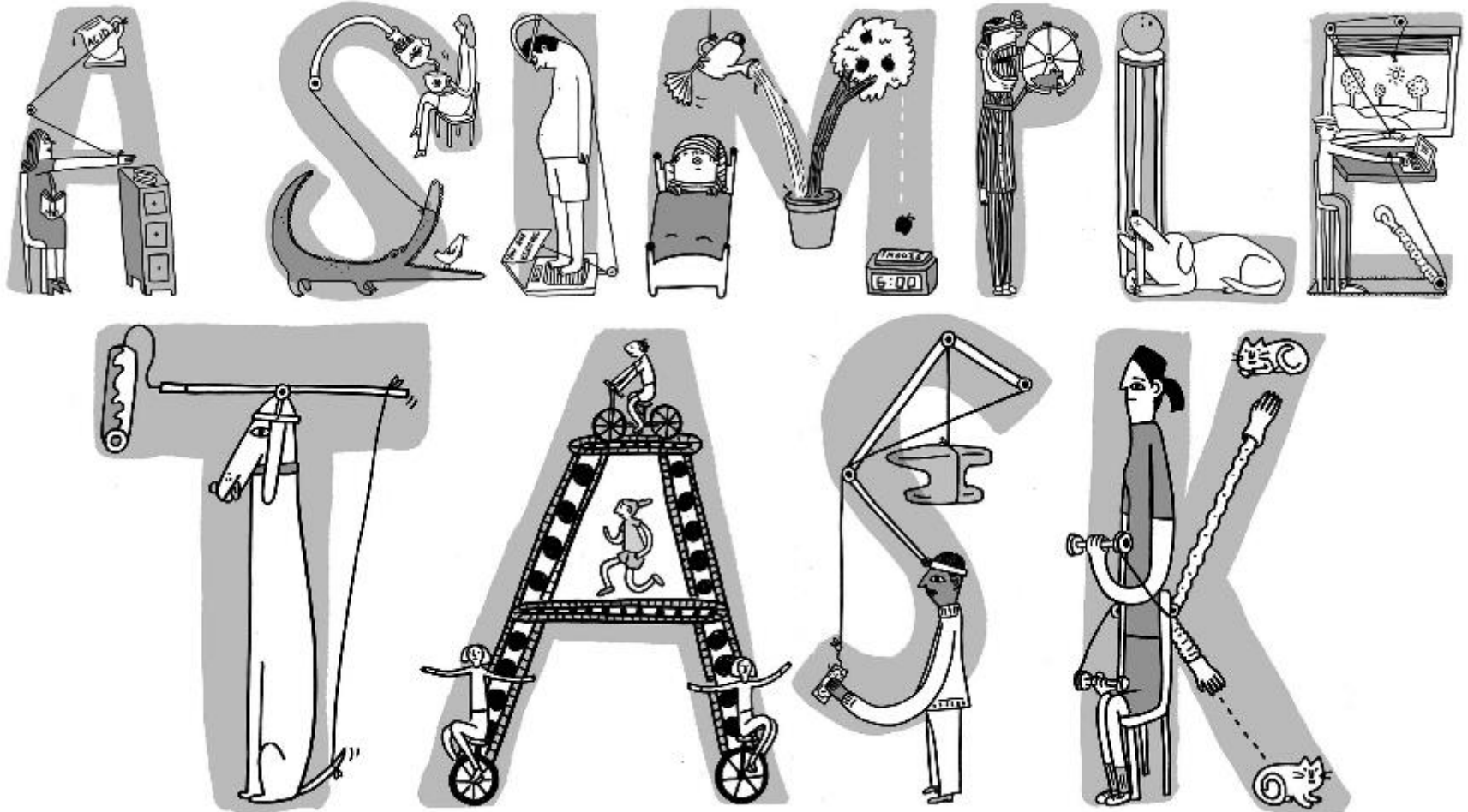


Tips on Specific Aims and Resubmissions

Janine M. Simmons, MD, PhD
Chief, Individual Behavioral
Processes Branch
Division of Behavioral & Social
Research
National Institute on Aging
GEMSSTAR Webinar 10/15/20



Grant Writing is not ...



Specific Aims 1

❖ Writing

- Create a compelling narrative.
- Strive for clarity, readability, logical flow.
- Think about your audience.
- Avoid hyperbole

❖ Scope

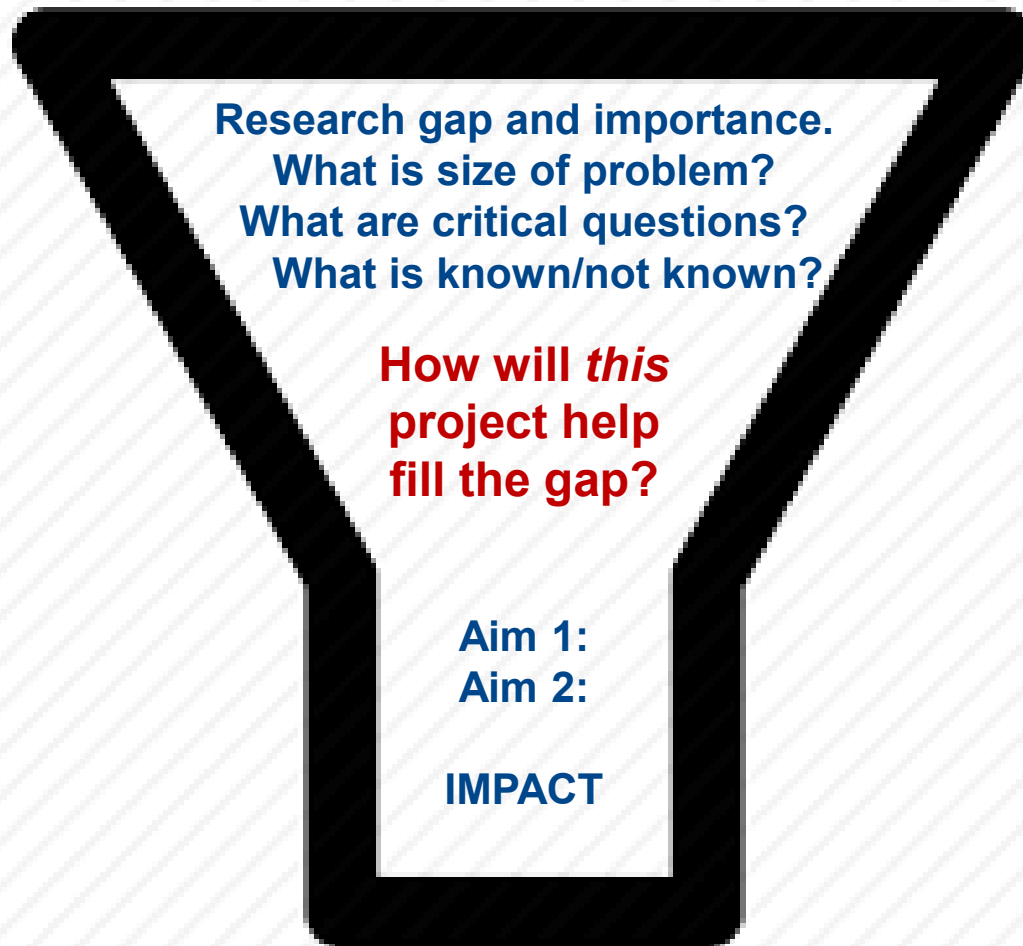
- The proposal must be *feasible*
- R03 – *small* research project (\$100K/yr x 2 yr)
- Integrate aims.
- Avoid over-ambitiousness

❖ Impact:

- What will we know after these experiments are done that we don't know now?
- Where do I plan to take this work in the future?
- Focus on tangible, near term goals as basis for longer-term research career

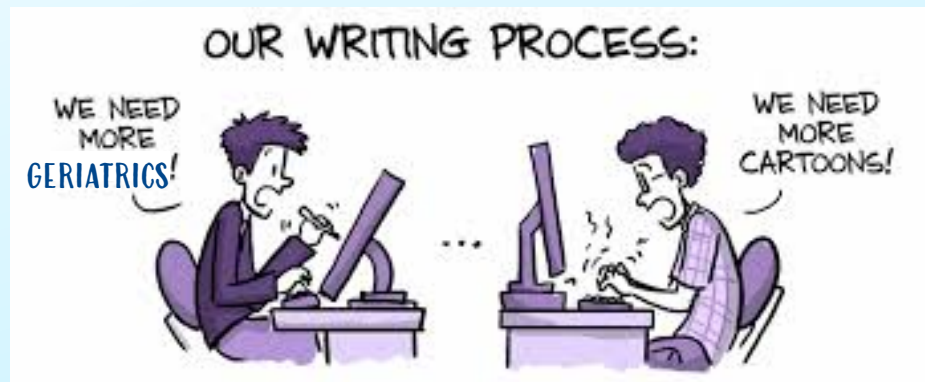


Specific Aims 2



Resubmissions

- ❖ Introduction is *one* page.
- ❖ Be as responsive as possible.
- ❖ Maintain polite (even grateful) tone of voice.
- ❖ Consider organizing by ‘big themes’.
- ❖ Summarize and provide pointers for more details



Keep a sense of humor.

Crafting a Professional Development Plan

Basil Eldadah, MD, PhD

Division of Geriatrics and Clinical Gerontology,
NIA

Clin-STAR Grant Writing Workshop

October 15, 2020

What's the purpose?

“Applicants are encouraged to describe **specific activities that will augment their skills in geriatrics and/or aging research in order to develop into independent researchers in aging science.**”

What does the RFA say?

- Applicants are strongly encouraged to include a section titled "Evidence of a Supportive Environment" that describes an individualized Professional Development Plan supported by non-R03 sources.
- This plan would provide for cultivating and garnering resources, activities, collaborations, and/or didactic or practical experiences concurrent with the R03 research project that will
 - lead to enhanced knowledge and skills in aging/geriatrics science, and
 - increase the applicant's likelihood of successful completion of his/her GEMSSTAR project.
- This plan would complement the GEMSSTAR R03 award and could be supported through a variety of non-R03 sources as described in Part 2, Section I.
- This section will not impact peer review scores.
- *This section is limited to 5 pages within the Facilities & Other Resources attachment.*

Example PDP activities

- Mentorship plan: meetings, practical experiences
- Formal coursework (could lead to additional degree or certification)
- Participation at geriatrics/aging national meetings
- Geriatrics clinical exposures
- Journal clubs
- Grand rounds
- Professional milestones (e.g., publications, presentations, grant applications, academic advancement)
- Curriculum development

Funding your PDP

- Support for PDP activities should come from non-R03 sources; e.g.:
 - Your institution
 - KL2, K12, R25 program
 - Mentored K award
 - Specialty societies – see American Geriatrics Society (<https://www.americangeriatrics.org/programs/geriatrics-specialists-initiative/gsi-advancing-research>)
 - NIA research center (e.g., Pepper, Alzheimer's, Shock, Roybal, RCMAR, Demography)
 - Foundations, other private sources
- Support can be in \$'s, protected time, or a combination
- Seek funding when you start developing your GEMSSTAR application
- Provide documentation of support in R03 application (“Other Attachment”)
 - If you have applied for support but have not yet received a commitment, tell us about it in the application

How much time should I commit to my PDP

- Short answer: as much as you can afford
- Longer answer: GEMSSTARs are for physicians/dentists who want to combine their clinical specialty with aging research. If that's what you want, let your PDP show it!

Biosketch or Letter of Support?

- Biosketches are for senior/key personnel and other significant contributors to R03 project
- Letters of support are for individuals who are not contributing to the research project should provide a letters of support
 - E.g. mentors not involved in research project, department/division chairs, other institutional officials
- Include in the Letters of Support section (not the PDP section)

Who evaluates the PDP?

- Peer reviewers
 - Provide administrative comments for the benefit of NIA program staff
 - Comments do not factor into the score of the R03 application
 - Only what's available in the R03 application
- NIA program committee
 - Evaluate as evidence of a supportive research environment
 - Consider peer reviewers' administrative comments (if any)
 - Additional material (if any) requested after submission

What does a geriatrician's PDP look like?

- Geriatricians are experts in aging clinical care, but not necessarily in aging research
- A geriatrician's research project may involve other clinical specialties or research disciplines
- Remember: the PDP is intended to reflect a supportive research environment

The ENIGMATIC Review PROCESS

Isis S. Mikhail, MD, MPH, DrPH
Chief, Clinical Sciences Section
Scientific Review Branch
National Institute on Aging
National Institutes of Health
GEMSSTAR Webinar 10/15/20



What happens after you submit your application?

Division of Receipt and Referral Center of Scientific Review (at CSR)

- Check for completeness
- Determine area of research
- Assign an identification number
- Assign a grant number
- Assign application to specific NIH IC
 - Cover Letter

GEMSSTAR Review Process

- **Letters of Intent (LOI)**
 - **Why a LOI is helpful to you?**
- **Selection of expert reviewers:**
 - **3 reviewers per application.**
- **GEMSSTAR Review Meeting**
 - **How are applications reviewed?**
 - **Preliminary scores; Discussion; Final Scores.**

GEMSSTAR Review Process

- **Discussed vs Not Discussed (ND): *Why some applications are ND?***
 - **Multiple factors: RFA, number of applications; lowest scores.**
 - **Agreement by review panel; “rescuing” an application.**
 - **ND applications receive a summary statement without a resume of the panel discussion.**

GEMSSTAR Review Process

- **Dos and Don'ts**
 - **Write clear specific aims; understandable by the entire panel of varied expertise.**
 - **Do not get bogged down with details or acronyms of your specific specialty or research area.**
 - **Follow directions (*font, margins, appendix, hyperlinks rules, etc.*).**

GEMSSTAR Review Process

What about the Professional Development Plan (PDP)?

- **PDP is not considered in the R03 score.**
- **But the reviewers are asked to read it and provide comments about it.**

GEMSSTAR Review Process

- **When will the scores be released?**
 - **Within up to 3 days after the review meeting.**
- **When will summary statement (SS) be released?**
 - **Up to 6 weeks after the review date.**

GEMSSTAR Review Process

- **When to contact the SRO?**
 - **After you submit your application until you receive the SS.**
- **When to contact the Program Officer (PO)?**
 - **Before you submit the application, and after you receive the SS to discuss it as needed.**

GEMSSTAR Review Process

What can I submit after the deadline?

Post-submission material:

- > 30 days before the date of the review.
- Who should submit it?
- Why 30 days or more?

Notice NOT-OD-10-083 (2/15/2019):

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-19-083.html>

- Additional Exception (due to COVID-19):

- Accepting preliminary data as post-submission materials has been extended to the May 2021 Council round

Notice: [NOT-OD-20-163](https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-163.html)

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-163.html>

GEMSSTAR Review Process

- Appendix info?
- No publications or other material, with the exception of blank questionnaires or blank surveys, may be included in the Appendix.
(RFA: Section IV. Application and Submission Information)

GEMSSTAR information you will need:

- Read the RFA:

<https://grants.nih.gov/grants/guide/rfa-files/RFA-AG-21-023.html>

- Read the NIA GEMSSTAR webpage:

<https://www.nia.nih.gov/research/dgcb/grants-early-medical-surgical-specialists-transition-aging-research-gemsstar>

- Talk to your PO.

Good luck!



Research Resources and Tools

Recipes for Success



Molly V. Wagster, PhD
Chief, Behavioral and Systems
Neuroscience Branch
Division of Neuroscience
National Institute on Aging

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Animal Resources



- Rodent Resources
 - NIA-supported colonies of aged rats and mice
 - NIA-supported aged rodent tissue bank
 - Alzheimer's Preclinical Efficiency Database (AlzPED)
 - **Successful Trajectories of Aging: Reserve & Resilience in RatS (STARRRS)** - NIA Intramural Research Program
- Nonhuman Primate Resources
 - ~ 300 NHPs supported by NIA at US primate centers
 - Nonhuman Primate Tissue Bank - aged NHP tissues

<https://www.nia.nih.gov/research/resources>

Clinical Resources



- Health and Retirement Study (HRS)
- National Alzheimer's Coordinating Center (NACC)
- Alzheimer's Disease Neuroimaging Initiative (ADNI)
- NIA Genetics of Alzheimer's Disease Data Storage Site (NIAGADS)
- Baltimore Longitudinal Study of Aging (<https://www.blsa.nih.gov/>) – NIA Intramural Research Program

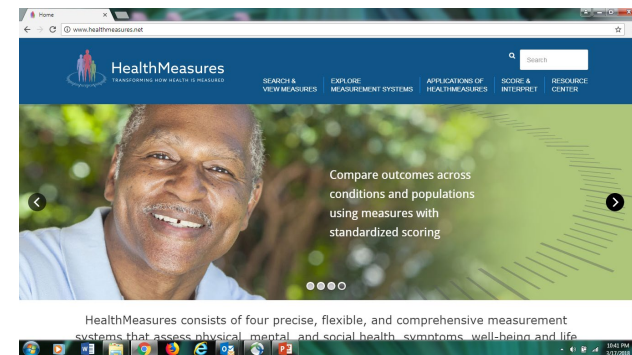
<https://www.nia.nih.gov/research/resources>



Measurement in Clinical Studies

- Importance of common measures across studies
- Importance of valid, psychometrically sound measures that are brief, easy to use, have low subject burden
- Address needs of NIH researchers via NIH Common Fund and Blueprint for Neuroscience Research initiatives

<https://www.healthmeasures.net/>



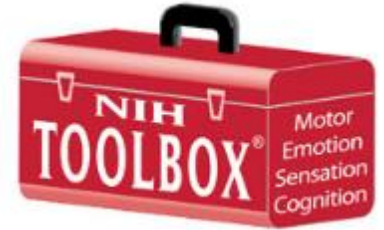
Patient Reported Outcomes Measurement Information System PROMIS®



- Self-report measures
- Assessments of global, physical, mental, and social health
- Adults and children in the general population and those living with a chronic condition
- English & Spanish versions – available in other select languages



NIH Toolbox[®] for Assessment of Neurological and Behavioral Function



- Performance measures of cognitive, motor and sensory function; self-report measures of emotional function
- Ages 3 – 85 years
- English & Spanish versions – available in other select languages
- For use on iPad

www.nihtoolbox.org

[https://www.healthmeasures.net/images/nihtoolbox/NIH Toolbox brochure June 2017.pdf](https://www.healthmeasures.net/images/nihtoolbox/NIH_Toolbox_brochure_June_2017.pdf)



Still in the test kitchen!

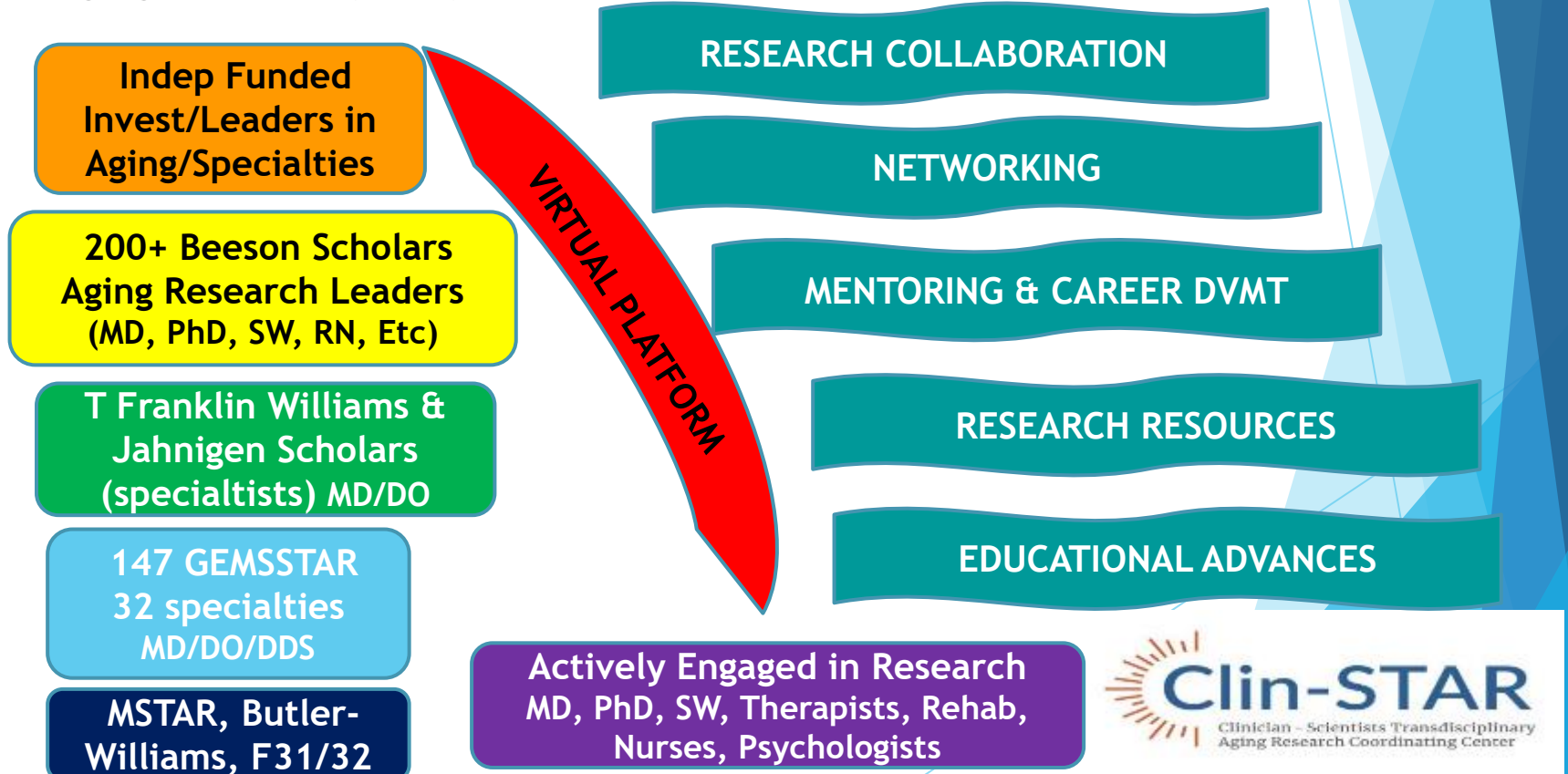
- **Advancing Reliable Measurement in Alzheimer's Disease and Cognitive Aging (ARMADA)**
 - Validation of NIH Toolbox measures in aMCI, early stage AD; extend age range beyond 85
- **Mobile Toolbox**
 - Cognitive measures for self-administration on Android and iOS platforms
- **MyCog**
 - Brief cognitive impairment screening battery
- **ToolboxDetect**
 - Validation study of cognitive screening instruments for use in clinical setting and incorporation into EHR

Working WITH Program Officers

Susan Ziemann, M.D., Ph.D.
Medical Officer, Geriatrics Branch
Division of Geriatrics and Clinical Gerontology, NIA, NIH
GEMSSTAR Webinar 10/15/20

But Wait...Dr. Wagster didn't mention the SPECIAL SAUCE!

- ▶ More Resources for Investigators focusing on Aging/Geriatrics aspects within Specialties:
- ▶ Introducing **Clinician Scientists Transdisciplinary Aging Research** - Clin-STAR - a Virtual Wonderland of Opportunities!! Funded by NIA to American Federation of Aging Research (AFAR)



Synergizing Career Development Toward Improved Care of Older Adults across Specialties and Disciplines

- ▶ NIA identified need to facilitate transdisciplinary aging research by medical and surgical specialists by:
 - ▶ Funding the creation of **virtual platform** (database designed, executed and overseen by AFAR and PIs) – **Clinician Scientist Transdisciplinary Aging Research (Clin-STAR Coordinating Center)**
 - ▶ **Expand GEMSSTAR Scholars Community** to include specialty Clinician Scientists at all career levels and background (investigator defined by NIH) – pharmacists, therapists, post-doc, social workers, nursing investigators, etc)
- ▶ Opportunities and resources: webinars, career development, transdisciplinary research, networking, mentoring, aging research skills, in person and online meetings/interest groups, mini-sabbaticals, visiting professor
- ▶ Core Structure
 - ▶ Leadership – Tom Gill, Yale
 - ▶ Mentorship & Career Development – Kristine Yaffe- UCSF
 - ▶ Research & Dissemination – Jeremy Walston



Read the blog here:
<https://bit.ly/39nSWoE>

- NIA Administrative Supplement to AGS

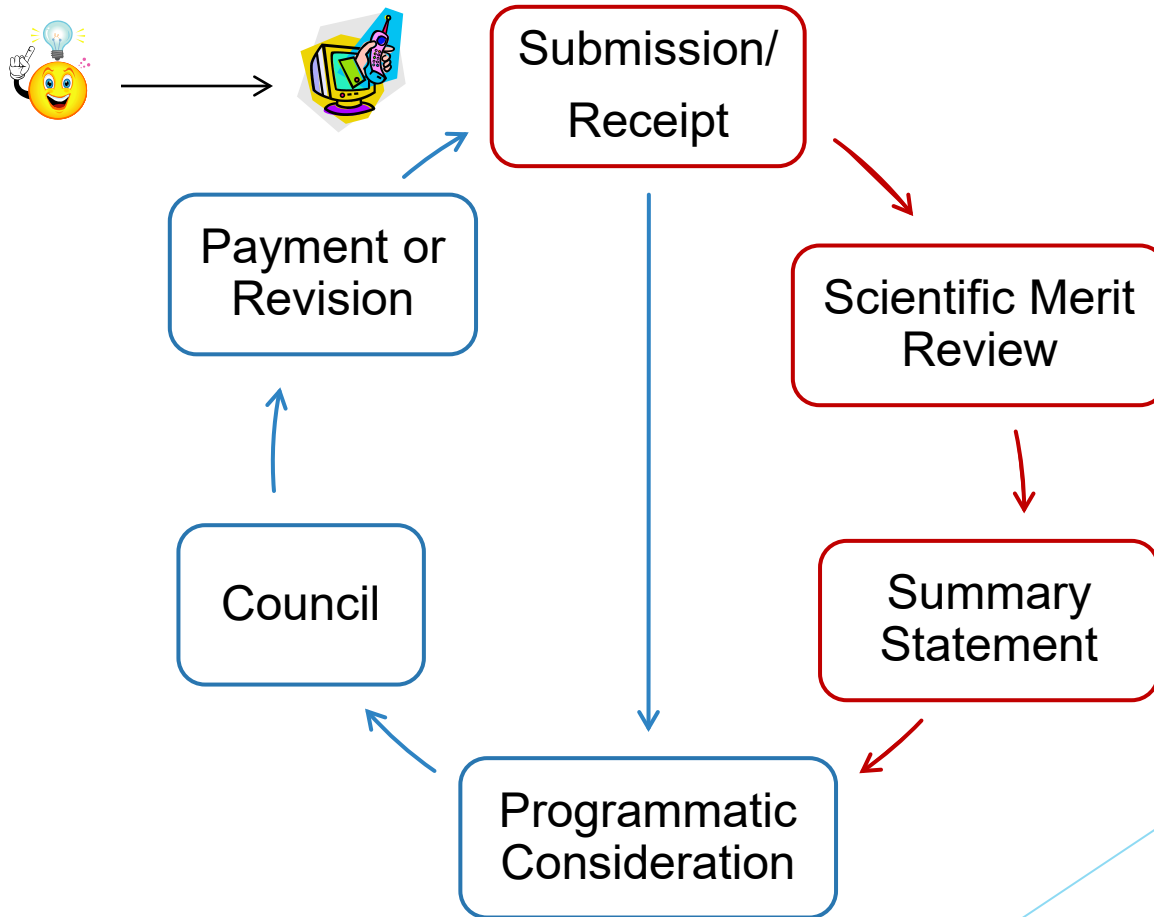
More about Program Officers

- ▶ We are scientists
- ▶ We have 3 major goals & approaches.
 - Supporting our institute's mission. We set funding priorities.
 - Fostering the development of science. We develop funding initiatives, identify the most exciting scientific opportunities, and advocate for scientific projects.
 - Facilitating the grant application process for investigators. We talk to PIs about their ideas daily, offer feedback on draft Specific Aims, explain Summary Statements, and provide advice for navigating the system.
- ▶ We cannot fully achieve these goals unless you contact us.

Communicating with Program Officers

- ▶ We are a limited commodity but here to help!!
- ▶ Email query rather than call (we telework and attend meetings)- use GEMSSTAR Email (NIAGEMSSTAR@mail.nih.gov)
- ▶ Send draft of specific aims and questions with initial contact
- ▶ The earlier the contact, the more beneficial the advice.
- ▶ We will help to connect you with the most appropriate PO(s)
- ▶ The more you prepare, the better the information you'll get!
- ▶ Mentors, collaborators welcome on calls.
- ▶ We talk amongst each other and have the same information. Please avoid searching for additional info from multiple POs.
- ▶ *We do not participate in peer review process.*

With Whom do I Communicate When?



Take Home Points

- ▶ NIA is happy to help you - please contact NIAGEMSSTAR@mail.nih.gov
- ▶ Ponder your research and career trajectories
- ▶ Clear, Concise, Passionate Writing
- ▶ Follow ALL Instructions
- ▶ Please pack LOTS of PATIENCE for this journey
- ▶ Get lots of feedback

BEST WISHES!!!