Successful grant-writing strategies for junior scientists:

American public university perspective

Strategie pisania podań o dotacje badań dla młodych pracowników nauki: z perspektywy amerykańskiego uniwersytetu publicznego

z perspektywy amerykanskiego amwersyteta pasmożneg

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Iowa State University, USA
2015-2016 U.S. Fulbright Scholar
Wroclaw University of Environmental and Life Sciences







NEWS FEATURE NATURE Vol. 455/9 October 2008

Jacek Koziel

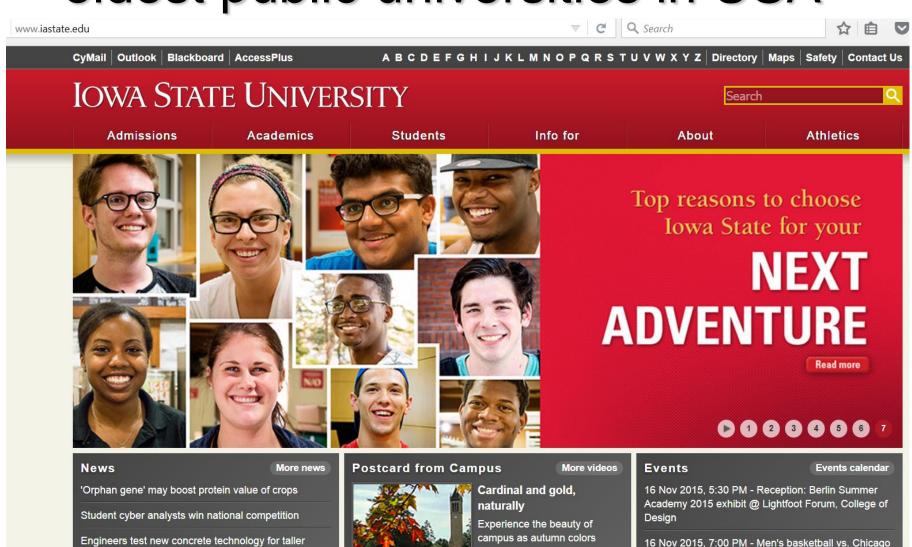
- M.S., Politechnika Warszawska, MEiL (1989)
 - M.S. U of Alaska (1993)
- Ph.D., U of Texas (1998)
- Pd.F. U of Waterloo (1998-2000)
- @ Iowa State University since 2004
- h factor = 25 (Web of Science, 1980 citations)



WHAT IS THAT SMELL?

Jacek Koziel is a master of odours. On a pig farm in lowa, he shows **Erik Vance** some of the peaks and troughs of life as a human detector.

Iowa State University: one of the oldest public universities in USA



State @ Hilton Coliseum

turbine towers

Iowa State University

- Established in 1858
- "Agricultural College and Model Farm"
- 36 000 students studying @100+ majors
- 800 student organizations
- 6 000 faculty & staff
- 252 000 Alumni
- \$1.4B ~ 6 000 000 000 PLN budget



Why is the successful grant-writing for junior scientists important?



mm

Gowin: Prace nad nową ustawą o szkolnictwie

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Selected differences between Poland and USA: Students

- M.S. and Ph.D. students admitted to most programs only if major professor [pol.:promotor] has a grant to support him/her
- · Letter of Intent [umowa o prace] with major professor
- Major professor pays stipend and tuition (50/100% for M.S./Ph.D.)
- Admission very competitive (global)
- Grant deliveries: publications, report(s)
- Typical journal publication expectation: ~1 M.S. & ~3 Ph.D.
- M.S./Ph.D. thesis committee (major prof.+2/4 other members)
- Grants funded by US Government, States, industry, commodity groups, foundations, universities, foreign governments or institutions.

Selected differences between Poland and USA: Faculty

- New faculty position created after consensus
- Hired after open (global) competition
- Paid 9 months/y—<u>incentive</u> to <u>write</u> papers& <u>apply</u> for <u>grants</u>!
- No "pensum"
- Each faculty member has his/her own job description
- Individual performance review based on job description
- 0 100% balance between Research-Teaching-Extension
- Hiring seen as <u>investment by department and university</u>
- 6-7 year 'trial' period till 'tenure' (Assistant-to-Associate Prof.)
- Resources to improve the rate of success
- Great freedom and enormous responsibility

Resources to improve the rate of success for Junior Faculty

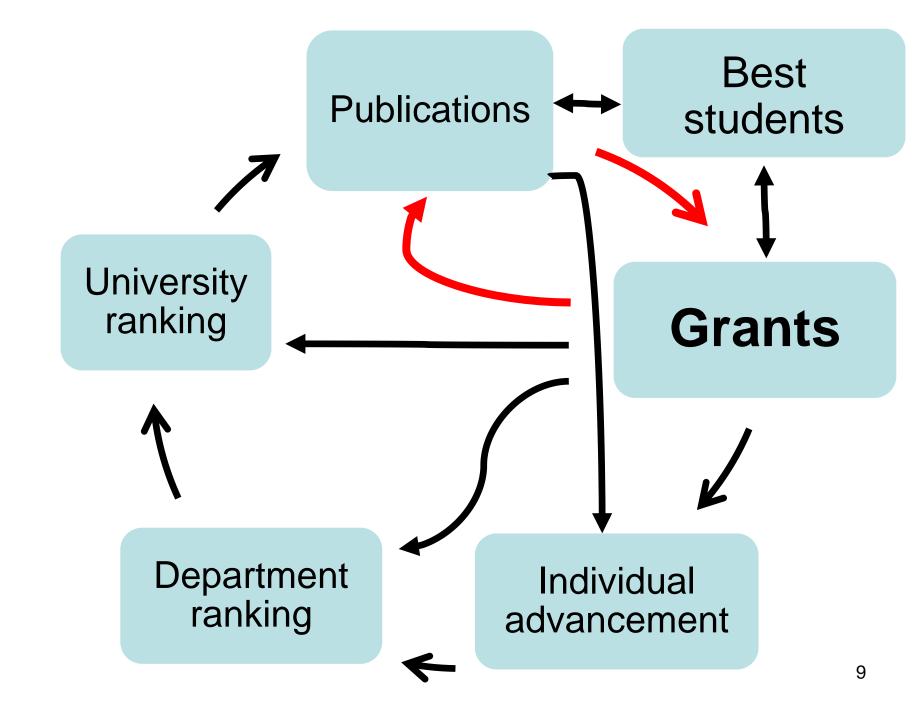
- Startup package for new faculty (e.g.)
 - Negotiated
 - Lab space
 - Funding for new lab equipment
 - Funding for 1 Ph.D. student
 - Lower teaching load
 - Lower expectations for administrative and service work
 - Yearly feedback, 3 year midpoint evaluation

Mentoring

- Writing grants (3% to 30% funding rate)
- Hubs for grant information
- Time management
- Effective instruction (teaching)
 - starts early e.g., Preparing Future Faculty programs
- Senior faculty partner







Departmental level

- Administrative person preparing budgets and 'pushing' paperwork though University administration
- Faculty can focus on writing science
- Monthly newsletter with grants submitted and grants awarded
- Weekly newsletter highlighting open requests for proposals
- Possibility to 'buy-out' teaching responsibility with large grant

Departmental level



To 'ABEFaculty@iastate.edu'

ABE Faculty,

Summer is finally here!! Once you've had a couple of days to relax, please take a few tips below - each one takes 2-3 minutes to read. Steve Mickelson and Matt Helmers

Five key questions for grant success:

http://granttrainingcenter.com/blog/five-key-questions-grant-success/

Five writing style secrets to get you funded:

http://granttrainingcenter.com/blog/five-writing-style-secrets-to-get-you-funded/

How to write successful collaborative applications:

http://granttrainingcenter.com/blog/write-successful-collaborative-application/

Five people you need on your proposal team

http://granttrainingcenter.com/blog/five-people-need-proposal-writing-team/

Five lethal research grant flaws

http://granttrainingcenter.com/blog/five-lethal-research-grant-flaws/

The most important advice for new grant writers

http://granttrainingcenter.com/blog/important-advice-new-grant-writers/

10 key ingredients of winning proposals

http://granttrainingcenter.com/blog/10-key-ingredients-winning-proposals/

College level

- Networking opportunities
- Encouragement to collaborate between departments
- News stories highlighting accomplishments of individual faculty
- Funds to hire professional grant writer for large \$ grants
- Workshops communicating strategies for advancement
- Workshops presenting successful strategies to win grants in certain programs (e.g., Fulbright, NSF-CAREER, USDA-NIFA)
- Inviting grant program managers to campus

College level

IOWA STATE UNIVERSITY

Engineering Research Institute

This Week's Funding Opportunities

If you are interested in pursuing any of these opportunities please contact Raj Aggarwal (rka@iastate.edu; 515-294-9824) or Rachael Voas (rvoas@iastate.edu; 515-294-9735) for assistance or additional information.

If at any time you would like to stop receiving these funding opportunity updates please click the Unsubscribe link at the bottom of this message.

TRAnsformative DESign (TRADES)

https://www.fbo.gov/spg/ODA/DARPA/CMO/DARPA-SN-16-35/listing.html

DARPA-SN-16-35

Proposers Day: May 13, 2016 8:30 AM to 12:30 PM (EDT)

Webcast: Friday, May 13, 2016 from 8:30 AM to 12:30 PM.

Executive Conference Center (4075 Wilson Blvd. Suite 350, Arlington, VA 22203)

Registration closes: Friday, May 6, 2016 at 5:00 PM (EDT)

University level

- Funds for travel, meet, lobby with funding agencies management
- "Seed" funding to form teams and projects in strategically profitable areas
- Networking with stakeholders (public, industry, government)
- Communicating Broad Impact (health, food, environment, energy, climate change, economy, defense, crime, education)
- Continuous improvement (fairness, transparency, efficiency)

U.S. Government resource: grants.gov





Explore our Grants Learning Center »



BROWSE ELIGIBILITIES

Find Open Grant Opportunities

NEWEST OPPORTUNITIES

BROWSE CATEGORIES

Funding Opportunity Number	Opportunity Title	Agency
INL-16GR0032-INLEAMOLDOVA-05-11-2016	Supporting Moldovan Civil Society Involvement in Law Enforcement Sector	International Narcotics and Law Enforcement Affair
PAR-16-255	Cancer-related Behavioral Research through Integrating Existing Data (R21)	National Institutes of Health
PAR-16-256	Cancer-related Behavioral Research through Integrating Existing Data (R01)	National Institutes of Health
RFA-AG-17-012	Grants for Early Medical/Surgical Subspecialists' Transition to Aging Research (GEMSSTAR) (R03)	National Institutes of Health
RFA-AG-17-010	From Association to Function in the Alzheimers Disease Post Genomics Era (R01)	National Institutes of Health
RFA-AG-17-011	From Association to Function in the Alzheimers Disease Post Genomics Era (R21)	National Institutes of Health

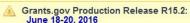
BROWSE AGENCIES

Grants.gov Updates



Grants.gov Calendar

Check out our calendar to get the latest updates about our upcoming releases, maintenance, and outages.





Grants.gov Community Blog 🗗

Visit the Grants.gov Community Blog to learn about the latest in the grants community.



Grants.gov Notices

For more information on upcoming changes with user impacts, please visit the Grants.gov notices page for the latest information.



Grants.gov Releases

For information about recent changes and enhancements to Grants.gov, review the latest release notes.



DATA Act Section 5 Pilot Program Presentation

The Department of Health and Human Services (DHHS) recently organized a webinar about the DATA Act Section 5 Pilot Program.



Financial Assistance

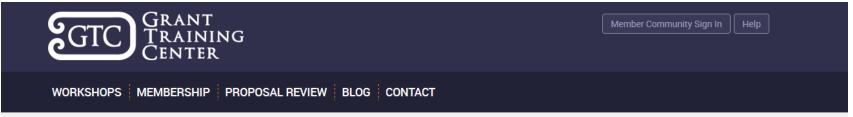
Grants.gov does not provide personal financial assistance. Please visit our Grant Programs to learn where you may find personal financial assistance.



Suspect Fraudulent Activity?

The United States Government does not require payment, of any kind, to receive federal grants. Learn more about suspected fraudulent activity.

Granttrainigcenter.com





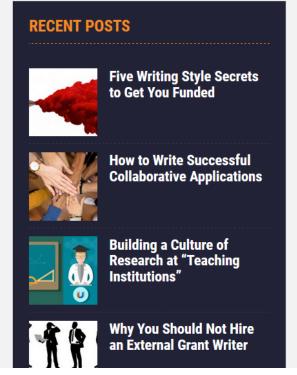
Five Key Questions for Grant Success

🛗 February 22, 2016 / 📤 Mathilda Harri

Five key questions that are universal to all grant writing will determine the success of a proposal. Knowledge, credibility, direction, research, and passion are essential components of any proposal. Politics will also play an important part in this process. This requires a full understanding of what the funder wants. If the objectives and the language of the donor are effectively integrated into the answers to the following questions, then the chances of success are excellent.

Why do you want to do this? The immediate answer should be because you care about the idea, which will serve either a specific population in need or fill an important knowledge gap in the field. Another important reason for your desire to do this is your passion for the





Strategies for Grant writing for Junior Faculty (1)

Personal level

- Develop ranked list of priorities aligned with job description
- Prioritize where/when/with whom/why/what for
- Start early
- Schedule 'grant writing' into daily planner
- 30 min writing/day preferably in the most productive time of day.
- Keep 'grant writing' time as absolutely 'sacred'
- No e-mails, calls, ad-hoc meetings, i.e., all distractions

Strategies for Grant writing for Junior Faculty (2)

Personal level

- Change from 'reactive' to 'proactive'
- Lowers stress
- Results in 'explosive' increase of productivity
- Develop habit of scheduled daily writing
 - Grants
 - Publications
 - Class preparation
 - Administrative/service work
- Ask colleagues/team for early feedback
- Ask program manager for feedback

Strategies for Grant writing for Junior Faculty (3)

Improve visibility of your research

- Develop professional e-mail signature
- Network world-wide
- Highlight your accomplishments:
 - Develop/update your publications record
 - » Web of Science (Researcher ID)
 - » Scopus
 - » Google Scholar
 - » Research Gate
 - » Academia.edu
 - » Mendeley
 - » Establish ORCID unique ID

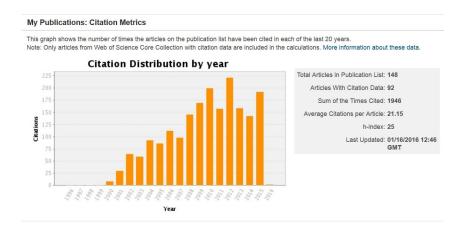
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tel. <u>515-294-4206</u>, fax: <u>515-294-4250</u>, e-mail: <u>koziel@iastate.edu</u> <u>Publications - Web of Science – Research Gate - Digital Repository</u> air quality engineering and livestock odor - <u>Air Quality Laboratory</u>



Strategies for Grant writing for Junior Faculty (4)

Publications

- Publish in best journals in your discipline
- Avoid paying to publish
- Know who cites your work
- Volunteer to review manuscripts
- Document your reviewer activity in e.g. Publons
- Comment on published manuscripts
- Request feedback on your published manuscripts

Reviewer activity

Volunteer to review proposals

Strategies for Grant writing for Junior Faculty (5)

Grant writing (1)

- Read, read, read again the request for proposals
- Copy/paste required content into Word/template
- Proposal needs to address important need, problem, gap in knowledge
- Excellent literature review
 - What is generally known?
 - What is not known
 - What are you going to do about it?
- Objective(s) clearly addressing need/gap
- Rationale (i.e., what will be possible if need/gap is addressed
- Long-term goal

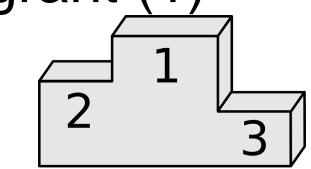
Strategies for Grant writing for Junior Faculty (6)

Grant writing (2)

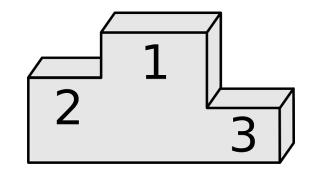
- Methods
- Preliminary results (evidencing high probability of success
- Economical analysis of solution
- Technical feasibility
- Budget, timeline
- Facilities
- CVs, clearly defined roles of collaborators
- Deliverables (publications, report)
- ABSTRACT ('imagine you are paying \$ of every word')

Criteria for successful grant (1)

- Fit into the call for proposals
- Bright idea/innovation
- Art of 'selling' the idea
- Clear and straightforward writing
- Short sentences
- Short paragraphs
- Positive message (not negative)
- Vigor, enthusiasm, energy
- Focus on Broader Impact
- Synergistic collaboration, evidence of prior collaboration



Criteria for successful grant (2)



- Excellent Title and Abstract
- Visual appearance (Bold, Italics, underline)
- Use of logic models, graphical abstracts, pictures, figures.
- Repeated use of key phrases and language from the request of proposals
- Realistic budget (\$, scope, time, lab space, expertise, equipment)
- Preliminary results
- Publications, publications, publications....

What can we learn from Polish national soccer team?

