Role of monoacylglycerol lipase in coordinating diverse lipid signaling pathways

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University of California, Berkeley
Timeline

- 8/2004-5/2008: Ph.D. in Molecular Toxicology—UC Berkeley
- 6/2008: started postdoc in Chemical Physiology—The Scripps Research Institute (PI Ben Cravatt)
- 10/2009: Applied for K99/R00 (NIGMS)
  - ACS Postdoctoral Fellow
  - 14 publications: 2 in postdoc with 1 paper in press in Cell
- 4/2010: Impact/Priority Score received (29—not fundable under NIGMS)
- 4/2010: Application Transferred to NIDA
- 5/2010: Council Review
- 7/1/2010: Award Granted
- 8/2010-12/2010: Applying for academic positions (~96 schools)
- 10/2010-4/2011: Interviews at universities (22 interviews, 12 offers)
- 4/2011: Accepted UC Berkeley offer
- 4/2011: sent in application to activate R00
- 6/2011: starting at UC Berkeley
- 7/2011: activation of R00??
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Career goals and objectives
• intent to pursue academic career—emphasize both research and teaching and your experience in both
• explain how your background prepares you for the academic career
• briefly describe your goals in the mentored phase and how it will prepare you for your independent phase goals.
• how will you distinguish yourself in your independent phase?

Research Plan:
Specific Aim #1: Elucidate the mechanism by which the MAGL-fatty acid network contributes to cancer pathogenicity.
Specific Aim #2: Expand our understanding of the role that MAGL plays in regulating diverse types of cancer.
Specific Aim #3: Dissect the individual and synergistic roles of MAGL-mediated endocannabinoid and prostaglandin signaling in neuroinflammation and neurodegeneration

Collaborators:
1 cancer collaborator
1 neuroinflammation/neurodegeneration collaborator
1 collaborator on stroke research
<table>
<thead>
<tr>
<th>Candidate: 1</th>
<th>Career Development Plan/Career Goals /Plan to Provide Mentoring: 1</th>
</tr>
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<tbody>
<tr>
<td>Research Plan: 1</td>
<td>Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s): 1</td>
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<tr>
<td>Environment Commitment to the Candidate: 1</td>
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**Weaknesses**
- The research plan is a bit *overambitious* for the tentative time frame proposed. This is a very minor concern.

<table>
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<th>Candidate: 1</th>
<th>Career Development Plan/Career Goals /Plan to Provide Mentoring: 2</th>
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**Weaknesses**
- Could be considered *over ambitious, and even distracting* to examine multiple cancers and neuroinflammation, and rather to more deeply examine mechanism. However, the counterpoint to this potential weakness is that cancer-unique vs. cancer-shared pathway information will be especially useful in informing future clinical/therapeutic, and surrogate marker studies.
Reviews: Critique 3

Candidate: 1
Career Development Plan/Career Goals /Plan to Provide Mentoring: 4
Research Plan: 3
Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s): 4
Environment Commitment to the Candidate: 5

Overall Weaknesses

• The Career Development Plan is basically to hire a technician to support the applicant’s research. The other resources and plans are those expected for any postdoctoral fellow with the applicant’s credentials.

• The Research Plan is likely to lead to papers with important ramifications in several research fields, but it is unclear that the applicant will receive sufficient in-depth training to position him as a future leader in any one of these areas.
Weaknesses

• “This strategy is likely to generate a number of important papers, but it is unclear that the multiple proposed collaborations will give the applicant the grounding that he needs in any one area to support his future career as a principal investigator.

• Aim #3 is even more ambitious than the overly ambitious Aim #2…. These areas could be even more productive than the studies proposed in Aim #2, but it is not realistic to believe that the applicant can be trained in each of these areas during the next two years.

• All of the collaborators are supportive, but none appears to be a co-mentor, someone who would move Dr. Nomura’s research to a new level not otherwise obtainable through the significant resources of Dr. Cravatt’s laboratory.

• No additional institutional support is promised if the applicant obtains a K99 award in addition to his ACS fellowship.
Dear Dan:

I am writing to expand information on the UC-Berkeley offer to you as required by the terms of your NIH ROO support.

We are offering you a full-time appointment as a tenure-track Assistant Professor. This appointment is not contingent upon your having an ROO award, and the ROO award did not diminish the start-up package offered to you. As stated in my letter of March 7, you will be assigned independent lab space, and in addition will be assigned independent office space.

You will have a minimum of 75% protected research time, as long as the ROO is active, and most likely well beyond the term of the grant. …

UC-Berkeley mentors Assistant Professors through several mechanisms…. 

UC-Berkeley expects its faculty to develop independent research programs of international stature. The nature of the startup package reflects this expectation, as well as our advising program, and the amount of protected time allotted for your research.