

## Career Center

### OVERVIEW OF SERVICES:

Career Center services are available to all full-time graduate students in Engineering and Arts & Sciences (as well as undergraduates). Following are some topics of particular interest to graduate students. As you continue in your academic career, several questions may arise:

- As a master's candidate, do you want to continue on to a PhD or get some work experience?
- Do you want an academic job or not?
- How and where do you begin a job search?
- Should you use a CV or a resume?
- What career options do you have if you are considering leaving your graduate program?

The Career Center is here to support you as you work through these questions.

### Individual Career Counseling and Job Search:

All career-counseling meetings are completely confidential. We do not share information with faculty, supervisors, or advisors.

As you begin thinking about what you may want to do with your degree, we can help you explore how your skills, values, interests, and personality fit within your decision-making process. The Career Center has several assessments that have proved useful to students who have not yet made a final decision about how they would like to use their degree after graduation and are still researching their options. The Center also has counselors on hand to assist you with any career-related issues that may arise. The Career Center also offers practical services for graduate students. You can make an appointment for a resume or CV critique. You can practice a mock interview and receive immediate feedback on your interviewing skills; we can also tape these.

### The Dossier Service:

The Dossier Service provides students and alumni of Ph.D. programs a means of establishing a file of recommendation letters to be used in an academic job search. There are fees associated with this service (please refer to [Dossier Packet](#) for more information).

#### Who is eligible?

All students and alumni of PhD programs within the Krieger School of Arts & Sciences and the Whiting School of Engineering are eligible to use the Dossier Service. With the exception of Master's level students in Writing Seminars (who are eligible), Master's and Bachelor's degree candidates are not eligible to participate.

#### Why use the Dossier Service?

Rather than relying on individual mailings, this service allows students to have all of their recommendation letters sent as cohesive packages. This service also allows students to maintain confidential letters, which generally are more highly valued by prospective employers.

#### Questions?

If you have questions, please contact Evelyn Davis, the Career Center's Dossier Coordinator, at 410-516-8056 or [dossiers@jhu.edu](mailto:dossiers@jhu.edu).

## Employer Services:

Just as career-counseling appointments are completely confidential, all participation in J-Connect, On-Campus Recruiting (OCR), and other job search services is also confidential.

J-Connect is an online system that allows Career Center staff, students, and employers to interact with each other. You will use your J-Connect account to:

1. Keep updated on which employers are visiting campus to recruit or collecting resumes. The list and schedules change constantly, and the only way to keep track is to keep checking your account.
2. Submit resumes to specific employers that interest you. (Remember that simply participating in On-Campus Recruiting does not mean that any employers will automatically receive your resume.)
3. Register for Career Fairs and submit your resume to the fair resume books.
4. See which employers are hosting evening information sessions and sign up to attend.
5. Keep track of your recruiting status. Your account shows you which employers you have submitted resumes to, when you are selected for an interview, which information sessions you have signed up for, and more.
6. Sign up for interview time slots if you are selected as a preselect or an alternate for an interview.
7. Submit your resume to resume drops and special alumni opportunities, even for organizations that are not coming to campus.

## KEY JOB SEARCH INFORMATION:

### Using J-Connect

- Fill out your J-Connect profile as completely as possible and provide as much information about yourself and your interests as you can.
- Make sure that you enter your email address completely and correctly. This is also how the Career Center and employers will contact you with important information.
- Be sure to enter your GPA to avoid complications when dropping resumes.
- You can change your password in the Password/Preferences tab.
- You can update or change your profile at any time from home page (the first page you see when you log into your J-Connect account).

### On-Campus Recruiting (OCR)

This is a process used by employers to recruit Johns Hopkins students. Employers may collect JHU resumes via a Resume Drop, interview students on campus, and/or conduct an information session. Information about participating employers, activities, and dates is maintained in your J-Connect account, within the "On-Campus Recruiting" section. Students and recent alumni (two years out) of

full-time Arts & Sciences and Engineering programs (including graduate students) are eligible to participate in OCR.

## Career Fairs

The Career Center hosts (or co-hosts) several events each year that can help you meet employers. Business professional attire is strongly encouraged at these and all career fairs. Research organizations before the career fair. Check J-Connect to see the companies that will attend on campus fairs and the positions that are available.

## What to Do If You Are Entertaining Several Offers?

This is a highly personal decision, of course, and your decision process should be one that fits your personality. However, you may find it worthwhile to make a list of attributes important to you, and to compare the institutions in each area. Some things to consider:

- Reputation of the organization
- Time derivative of this reputation (are they going up or down?)
- Opportunities for advancement
- Professional Development resources
- Salary
- Startup package
- Geography
- Quality of life in the area
- Your overall impression

## Ethics and Job Searching

If you are offered a position, you have three choices:

1. You can accept the offer. This is usually done both verbally and in writing. If you receive a written contract, you must sign and return it.
2. You can ask for more time to consider the offer. Asking for the offer in writing will often give you enough time to make your decision. It is appropriate for students to tell an employer that they are waiting on other interviews or offers and ask for more time to consider the current offer. Be sure to give a firm timeline stating when you will let the employer know your decision. A few days to two weeks is often appropriate. The Career Center at Johns Hopkins University asks that employers using our On Campus Recruiting system allow students to take until the end of the current recruiting period to evaluate offers (Thanksgiving in the fall semester and Spring Break in the spring semester).
3. You can reject the offer. If you have decided that the offer is not a good fit for you, you have received another more appealing offer, or you simply do not want the position, you can respectfully decline the position. Again, this is usually done in writing. Be sure to thank the employer for their consideration.

If you accept a job offer, then you are ethically (and sometimes legally) bound to take the job, even if you receive a better offer later. Accepting an offer and continuing to interview with other companies is considered both unprofessional and unethical. To avoid such situations, follow these recommendations:

- Carefully review all your options before making a quick decision. You can meet with a career counselor to discuss any job offer you may receive.
- Contact the company representative *before the deadline* if you need additional time to consider the offer.
- After you have accepted a job offer, stop interviewing.

## JOB SEARCH PROCESS GUIDE:

Academic Job Search Timeline - Budget one calendar year for this process.

1 year before graduation:

- Decide What and Where

\_\_\_\_\_ Position: Teaching, Research, or Both

\_\_\_\_\_ Institution: public or private, large or small

\_\_\_\_\_ Location, location, location

\_\_\_\_\_ Consider a post-doctoral position - do this if you want to expand your research with a different mentor or in a different setting. This is often a good option for someone who wants a tenure-track faculty position, which includes teaching, research, and administrative duties.

- Prepare documents

\_\_\_\_\_ Write and revise CV, teaching statement, research statement. Ask several people to review these and then decide what is best for you.

\_\_\_\_\_ Organize materials for teaching portfolio - Keep copies of syllabi, exam questions, assignments, and student evaluations.

\_\_\_\_\_ Publish your work! Make sure you include publications on your CV.

\_\_\_\_\_ Visit the Career Center for critique.

- Get organized and find the time when there is no time!

\_\_\_\_\_ Keep track of all the places you apply, what you sent them, and contact information.

\_\_\_\_\_ Keep a copy of the job description; sometimes these are deleted from the website when they are no longer accepting resumes, but before your interview.

- Explore the job market

\_\_\_\_\_ Research schools with appropriate departments or within your preferred geographic area.

\_\_\_\_\_ Learn about the schools' mission, goals, departments, strategic plans, and other facts of interest to you.

- Talk to your dissertation and academic advisor about your plans to search

- Network

\_\_\_\_\_ Contact potential references - give them copies of your CV

\_\_\_\_\_ Identify and use your network - schedule information interviews - talk with a career counselor to discuss your strategy.

\_\_\_\_\_ Plan to attend upcoming conferences in your field

\_\_\_\_\_ Present your work at professional conferences

\_\_\_\_\_ Mentor younger students in your field

- Consider using the Dossier Service offered at the Career Center

### 9 months before graduation

- Finalize your CV template
- Gather letters of recommendation

\_\_\_\_\_ You will need 3-5 letters from faculty, supervisors, research partners, and/or advisors.

\_\_\_\_\_ Consider using the Dossier Service

- Begin to apply for open positions

\_\_\_\_\_ Be sure your application packet is complete

\_\_\_\_\_ Follow all directions on how to apply for each specific university

\_\_\_\_\_ Read the job announcements carefully and target your application documents to the position, department, and university.

### 6 months before graduation

- Schedule a mock interview at the Career Center
- Continue applying for positions
- Shop for an interview suit
- Prepare and practice your academic job talk - usually your dissertation topic or research area

\_\_\_\_\_ Create a PowerPoint Presentation - and have a backup plan!

\_\_\_\_\_ Be able to explain your research both to your grandmother (or someone with no background in your field) and an expert in your field - tailor your talk to your audience.

\_\_\_\_\_ Prepare attractive presentation materials, handouts, and other items

\_\_\_\_\_ Prepare for likely questions

## Suggested Structure for the Academic Job Talk

Content	Time (minutes)	Target Audience	Detail Level
Background/ motivation	15	Everyone in the room	Your parents would understand it
Your approach	10	People in related fields	Show you know the field
Your results	10	People who work in your particular field	Show that you are the world's expert on something
Summary	10	Everyone in the room	Relate your results to the big picture

### 3 months before graduation

- Begin scheduling phone and face-to-face interviews
- Prep for Interviews
  - \_\_\_\_\_ Receive an interview itinerary
  - \_\_\_\_\_ Make Travel Arrangements
  - \_\_\_\_\_ Research the program
  - \_\_\_\_\_ Prepare meaningful questions to ask - consider who will be on the search committee and target different questions to different populations. For example, you will ask different questions of an HR representative, the Dean, a student, a fellow faculty member. Search committees tend to be made up of several people from different departments.
- Continue applying for open positions - network with colleagues working at the institutions you have applied to in this process. See more information on our networking handout.
- Send thank you notes for interviews and follow-up with schools who do not get back to you when they said they would
- Stay positive and be persistent - this is a long process

### Immediately after graduation

- Continue interviewing
- Continue to follow-up with schools you interviewed with
- Job Offers - things to consider
  - Reputation of the institution
  - Collaboration Opportunities
  - Quality of students
  - Teaching loads
  - Facilities
  - Salary
  - Startup package
  - Geography
  - Quality of life in the area
  - Your overall impression

- Negotiate salary and benefits as appropriate - consider the total compensation package - get it in writing!
- Be patient and wait for offers
- Accept an offer
- Find housing
- Move to the appropriate city

# SAMPLE CURRICULUM VITAE FORMAT—ACADEMIC JOB SEARCH

## FULL NAME

Permanent Address  
Telephone Numbers  
Other Contact Information

Professional Address  
Email Address  
Website or Portfolio Link

### Professional Profile

- A brief summary of your key skills, research, and years of experience
- List computer, technical, or language skills if applicable
- Include a career goal statement here if appropriate

### Education

- For each degree list (in chronological order with most recent first) name of university, city, state or country, degree earned, major, and date of graduation
- Include all universities, graduate school, post-doctoral training, and any additional training or certification
- Include thesis or dissertation title or topic
- The Education section usually comes first, if you do not use a profile

### Professional Experience

- For each position list (in chronological order with most recent first): job title, company or organization name, city, state or country, and dates of employment
- Add details of your knowledge, skills, accomplishments and responsibilities
- Include teaching, research, academic positions, consulting, practicum or internship, graduate assistantships, and other related jobs
- You may organize professional experience into separate categories by type of position with different headings (e.g. Teaching Experience, Research Experience, or Volunteer Experience)

### Areas of Specialization, Competence, Expertise, Research, or Teaching Interests

- Use these sections to delineate your specific areas of interest or expertise
- This information could also be included in your professional profile or summary
- Use these sections in lieu of professional experience, if you do not have much related experience in your field or are applying to a graduate program

### Publications and Presentations

- Use the citation style of your field (e.g. APA, MLA, Chicago, etc.)
- List in order with most recent first
- If you have numerous publications, you may organize them by type with different headings such as journal articles, book chapters, books, or abstracts
- List any conference presentations here or under their own heading using the appropriate citation style
- If you are not the first author, you could use bold type for your name to make it stand out

### Professional Memberships and Activities

- List any relevant professional associations you belong to
- Include membership dates and any leadership or committee positions you have held
- Add details of your knowledge, skills, accomplishments and responsibilities

### Extra-Curricular Activities and Volunteer Experience

- Include relevant activities and volunteering especially as related to your field
- For each experience list: your title, organization name, city, state or country, and dates

- If relevant, list details of your knowledge, skills, accomplishments and responsibilities

#### Other Optional Information

- Include as applicable: Honors, Awards, Accreditations, Fellowships, Grants, Patents, Certifications, Licensure, Foreign Study, or Travel Abroad

#### Formatting

- A CV can be as many pages long as it needs to be
- Use a simple font between 10-12 pt and ½” - 1” margins
- Check your spelling and grammar
- Be consistent in your use of punctuation and abbreviations

**CURRICULUM VITAE**  
**Uo riq'Uwf gpv**  
**3333'Eqngi g Road**  
**Baltimore, Maryland 21218**  
**Ph.: 6320330333**  
**Email: uo riq'uwf gpv@gmail.com**

**IMMIGRATION STATUS**

United States Permanent Resident (Citizenship: Australia)

**READING**

Quantitative Finance for Physicists (A. Schmidt), Economics for Professional Investors (T. Lee), Fundamentals of Trading Energy Futures and Options (S. Errera and S. Brown), Investors Business Daily, The Wall Street Journal

**INTERESTS**

Econometrics, econophysics, statistics and time-series analysis, numerical modeling and model/parameterization development, energy market dynamics, fractals and scaling arguments, database management systems, capital markets, optimization techniques

**COMPUTER SKILLS**

OS: **Microsoft Windows, Linux, UNIX**  
Coding/Script: **Fortran, SQL\*, python\*, C++\***  
Applications: **MATLAB/Octave, Microsoft Office, LaTeX**  
\*Presently learning with coursework and independent study

**EDUCATION**

- May, 2011 **PhD in Mechanical Engineering** [Research Assistant]  
The Johns Hopkins University, Baltimore, MD  
Thesis: A dynamic model for large-eddy simulation of boundary layer flow over multiscale, fractal-like surfaces
- May, 2009 **Master of Science in Engineering, Mechanical Engineering** [Departmental Fellow]  
The Johns Hopkins University, Baltimore, MD  
Coursework: Applied mathematics, numerical methods, convection, fluid mechanics, computational fluid dynamics, turbulence, fractals, downscaling and statistical methods
- Aug., 2007 **Master of Science in Civil Engineering** [Research Assistant, GPA: 4.0]  
Texas Tech University, Lubbock, TX  
Thesis: A Localized Dynamic Model for Large-Eddy Simulation of the Neutrally Buoyant Atmospheric Boundary Layer
- Dec., 2004 **Bachelor of Engineering in Civil Engineering (1st Class Honors)** [GPA: 6.03/7]  
James Cook University, Townsville, Australia  
Thesis: Strength and Ductility Predictions of Concrete Beams Rehabilitated with Fiber-Reinforced Polymer (FRP) Laminate Materials

**HONORS**

- 2010 **Best Student Presentation Award:** American Meteorological Society  
UoUwf gpv, 2010: A dynamic roughness model for LES of boundary layer flow over multiscale, fractal-like surfaces, *Amer. Meteorol. Soc., Proc. 19<sup>th</sup> Symposium on Boundary Layers and Turbulence*, Keystone, CO
- 2009 **Creel Family Teaching Award:** The Johns Hopkins University, Dept. of Mechanical Engineering (nominated and voted on by students and faculty. Presented to one graduate student in mechanical engineering each year at The Johns Hopkins Whiting School of Engineering Convocation Awards Ceremony)
- 2005 **Academic Medal:** James Cook University
- 2005 **Engineering and Information Technology Distinguished Student Prize:** James Cook University
- 2005 **Annual Student Prize for Structural Engineering:** James Cook University
- 2005 **Engineering award for Fluid Dynamics and Oceanography:** James Cook University and Townsville Port Authority

- 2004 **Annual Subject Prize for Civil Engineering:** James Cook University and Royal Automobile Club of QLD
- 2003 **1<sup>st</sup> place essay:** The Institute of Engineers, Australia (awarded expenses to attend 3rd Civil Eng. Conference in the Asian Region as Australian student representative)  
UWf gpv, 2003: Sustainable Development and the Future of Civil Engineering, *Proc. The 3rd Civil Eng. Conf. in the Asian Region*, Seoul, Korea
- 2002 **Undergraduate Scholarship for Civil Engineering** (half tuition): JJ McDonald & Sons (awarded to one undergraduate student in civil engineering each year)

#### AFFILIATIONS

American Society of Mechanical Engineers, American Geophysical Union, American Meteorological Society, American Physical Society, Institute of Engineers (Australia)

#### PROFESSIONAL EXPERIENCE

- 2007 – Present **Research Assistant:** The Johns Hopkins University, Dept. of Mechanical Engineering
- 2006 – 2007 **Research Assistant:** Texas Tech University, Dept. of Civil Engineering
- 2004 – 2005 **Consulting Structural Engineer:** Maunsell | AECOM, Australia
- 2004 Winter **Undergraduate Engineering Internship:** Maunsell | AECOM, Australia
- 2003 Summer **Undergraduate Engineering Internship:** MPN Consulting Engineers, Australia
- 2002 Summer **Undergraduate Engineering Internship:** JJ McDonald & Sons Engineering, Australia

#### TEACHING

- 2009 (Fall) **Teaching Assistant:** “*Uncertainty Analysis and Downscaling*” (Prof. C. Meneveau)  
The Johns Hopkins University, Dept. of Mechanical Engineering
- 2008 (Fall) **Teaching Assistant:** “*Fluid Dynamics I*” (Prof. L. Su)  
The Johns Hopkins University, Dept. of Mechanical Engineering
- 2008 (Spring) **Teaching Assistant:** “*Fluid Dynamics II*” (Prof. C. Meneveau)  
The Johns Hopkins University, Dept. of Mechanical Engineering
- 2007 **Teaching Assistant:** “*Introduction to Meteorology*”  
Texas Tech University, Dept. of Geosciences
- 2003 – 2004 **Teaching Assistant:** “*Engineering statics*”, “*Engineering dynamics*”, and “*materials science*”.  
James Cook University, Australia

#### JOURNAL PUBLICATIONS

UWf gpv, C. Meneveau, 2010: A dynamic large-eddy simulation model for boundary layer flow over multiscale, fractal-like surfaces. *J. Fluid Mech.* (Submitted)

UWf gpv, C. Meneveau, 2010: A large-eddy simulation model for boundary layer flow over surfaces with horizontally resolved but vertically unresolved roughness elements. *Boundary-Layer Meteorology* (Accepted)

UWf gpv, S. Basu, C. W. Letchford, 2007: Comparison of two scale-dependent dynamic subgrid-scale models for simulation of neutrally buoyant shear-driven atmospheric boundary layer flows. *Environmental Fluid Mech.*, 7, 195–215

#### NEWSLETTER

American Geophysical Union, Atmospheric Science (AS) Section Newsletter: Reporter: **Boundary-Layer Meteorology and High-Performance Computing**. 2007 – Present (Reports in issues: 1(1), 1(2), 1(3), 1(6), 2(4))

#### FUNDED COMPUTING PROPOSALS

*Dynamic parameterizations for LES of atmospheric flow over multiscale canopies and boundaries*

Request for compute time on supercomputer facility (**bluefire**) at the **National Center for Atmospheric Research** (National Science Foundation), Boulder, CO

**Submission:** Mar., 2010

**Grant Awarded:** May, 2010

*Dynamic parameterizations for large-eddy simulations of atmospheric flows over fractal-like, evolved fluvial landscapes: A proposal for GAU allocations to supplement NSF grant EAR 0609690*

Request for compute time on supercomputer facility (**bluefire**) at the **National Center for Atmospheric Research** (National Science Foundation), Boulder, CO

**Submission:** Sept., 2008

**Grant Awarded:** Oct., 2008

*Dynamic parameterizations for LES of atmospheric flow over multiscale canopies and boundaries*

Request for compute time on supercomputer facility (**bluefire**) at the **National Center for Atmospheric Research** (National Science Foundation), Boulder, CO

**Submission:** Apr., 2008

**Grant Awarded:** May, 2008

#### **OUTREACH**

Oct., 2009      Guest Speaker: Science, Engineering, and Information Technology Academy  
Lansdowne High School, Baltimore, MD

May, 2010      Guest Speaker: Pathways Tutoring Program  
Towson Methodist Church, Baltimore, MD

2005            Engineers without Borders, Australia

#### **EXTRACURRICULAR**

2007 – Present    The Johns Hopkins University, Mechanical Engineering Graduate Association

2006 –2007      Texas Tech University Rugby Football Club

2003 – 2005      Brothers Rugby Union Football Club, Australia (**Most Improved Player Award, 2003**)

## Industry Job Search Timeline - Budget 4-6 months to go through this process!

### Month 1

- Decide what kind of position you want, Explore options outside of academia in your field
  - \_\_\_\_\_ Meet with a Career Counselor for resources specifically tailored to your needs
  - \_\_\_\_\_ Self Assess: What are my skills, interests and values?
  - \_\_\_\_\_ Find/Identify relevant professional associations
  - \_\_\_\_\_ Conduct informational interviews with alumni/professionals working in the field you are interested in. An informational interview involves talking with people who currently work in the field to gain a better understanding of the field and build networking contacts. Contacts can often be found through professional organizations.
  - \_\_\_\_\_ Research target organizations in the industry that interests you.
- Prepare documents
  - \_\_\_\_\_ Meet with a Career Counselor to discuss reformatting your CV into a resume.
  - \_\_\_\_\_ Get feedback on your resume from industry professionals.

### Months 2 & 3

- Submit job applications via different websites
  - \_\_\_\_\_ Try to submit up to 5 applications a week if possible. It is a good idea to schedule time for yourself to work on these and stick to it.
  - \_\_\_\_\_ Create a job search Excel spreadsheet to organize applications you send. List the date you applied, job title and number, organization name, and when to follow-up
  - \_\_\_\_\_ Follow up on your applications to make sure they were received and begin networking to identify contacts at the organization.
- Network!
  - \_\_\_\_\_ Plan to attend upcoming conferences or meetings in the industry you are targeting
  - \_\_\_\_\_ Start a networking log in Excel where you list the date, name of contact, discussion notes, and any follow up instructions to yourself.
  - \_\_\_\_\_ Use resources like LinkedIn to create a professional profile and connect with Alumni and key contacts in industry, continue conducting informational interviews
- Prepare for Interviews

\_\_\_\_\_ Interviewing for industry positions is very different from academic interviews. Meet with a Career Counselor for a mock interview session.

\_\_\_\_\_ Begin practicing presenting information about your graduate level research to others who may have limited knowledge of the subject.

- Continue applying for positions

#### Month 4

- Interview! Ideally you should begin interviewing now, if you have been diligent in your search all along.
- Continue submitting applications for job openings
- Continue building and growing your network

\_\_\_\_\_ Revisit your job search/networking log and identify any contacts you should reconnect with/follow up with

#### Months 5 & 6

- Continue applying for open positions
- Send thank you notes for interviews and follow-up with organizations who do not get back to you when they said they would
- Stay positive and be persistent - this is a long process
- Work Job Offer/Negotiation process

\_\_\_\_\_ Meet with a career counselor to review any job offers you may have. In general, it is appropriate to ask for more time when making a decision.

\_\_\_\_\_ Once you have a position, follow up with your key contacts, developed through your networking efforts (including informational interviews) and let them know where you will be working and thank anyone who helped you along the way.

#### Collecting References for an Industry Job Search:

This can be difficult for graduate level candidates, especially if your advisor is not keen on you continuing your career outside of academia. You will need to have a professional reference who can speak to your graduate research or dissertation project. This could be another faculty member in the department if your advisor is not comfortable serving as a reference. The other references can be from past work experiences, organizations you are involved in professionally or on campus, or industry references. Meet with a career counselor to develop a references list based on your individual qualifications.

# SAMPLE RESUME FORMAT—INDUSTRY JOB SEARCH

## Hopkins Graduate Student

[gradstudent@gmail.com](mailto:gradstudent@gmail.com) Phone: 410-111-1111  
12345 University Way, Baltimore, MD 21218

### Education

#### Johns Hopkins University

PhD, Department of Biology

Baltimore, MD

**Expected Dec 2009**

*February 2009*

- National Eye Institute Travel Award
- 2009 Eaton E. Lattman Graduate Student Community Seminar Series invited speaker
- **3 primary publications**, 3 reviews, 3 invited presentations and 2 *in preparation* manuscripts

#### University of Georgia

Bachelor of Science in Genetics, GPA 3.85/4.0

Athens, GA

*May 2005*

**Honors College**, completed Honors Thesis

- Coca Cola Scholar

*2002- 2006*

### Research Experience

**Graduate Research**, Johns Hopkins University, Baltimore, MD

*2005- Current*

- **Bridged basic science and applied medical research** in neuroscience investigating the effects of circadian rhythms and light on behaviors such as sleep, learning and mood
- **Discovered** that light directly affects sleep, mood and learning through a subset of retinal photoreceptors which contain melanopsin and receive input from rods and cones.
- Initiated setup and **managed** mouse behavior facility requiring oversight of two employees
- Broadened scope of laboratory by building laboratory equipment to measure sleep, body temperature, activity, and anxiety *in house* leading to several publications and collaborations
- Conducted several **collaborations** resulting in publication and long-term scientific interaction
- Mentored 2 graduate students, 2 undergraduate students and 1 high school student

### Activities

Pioneers in Biology Lectureship Committee, Baltimore, MD

*2007- Current*

- Collaborated with other graduate students to invite high profile speakers such as Nobel Laureates to Johns Hopkins University with special time allocated for students

**Class Representative**, BioReps Committee, Baltimore, MD

*2008- Current*

- Advocating for and developing a student budget to allow student management of departmental events initiated by graduate students.

**Student Representative**, Retreat Planning Committee, Baltimore, MD

*2008- Current*

- Created a one minute “advertising” event to facilitate more scientific interaction

### Volunteer Experience

Greeter, Rawlings Conservatory and Botanic Gardens, Baltimore, MD

*2009- Current*

- Currently helping to start up “Ask a Scientist Program”

Aquarist Assistant, National Aquarium, Baltimore, MD

*2008- 2009*

- Worked with aquarium employees to take care of fish and educate visitors about exhibits

**Founder/ Organizer**, Oh My Music, Athens, GA

*2003- 2005*

- Connected university student musicians to 3 underprivileged middle schools

- Raised money and setup sponsorship with nationally acclaimed band, REM, to purchase supplies for music lessons to allow students to practice instruments at home

## Publications

- Altimus, C.M.**, Güler, A.D., Villa, K.L., McNeill, D.S., Legates, T.A., Hattar, S. Rods-cones and melanopsin detect light and dark to modulate sleep independent of image formation. *PNAS*. 2008; 105(50):19998-20003.
- Altimus, C.M.**, LeGates, T.A., Hattar, S. Circadian and Light effects on Mood Regulation. Chapter in *Mouse Models of Mood and Anxiety disorders*, NeuroMethods, Humana Press. *In press*.
- Lall, G.S., Revell, V.L., Momiji, H., **Altimus, C.M.**, Güler, A.D., Aguilar, C., Cameron, M.A., Allender, S., Hankins, M.W., Hattar, S., Lucas, R.J. Sensitivity, speed and adaptation of the cone photoreceptor contribution to circadian and pupillary responses to light. *Submitted*.
- McNeill, D.S., **Altimus, C.M.**, Hattar, S. Retina-clock relations dictate nocturnal to diurnal behaviors. *PNAS*. 2008; 105(35):12645-6.
- Güler, A.D., Ecker, J.L., Lall, G.S., Haq, S., **Altimus, C.M.**, Liao, H.W., Barnard, A.R., Cahill, H., Badea, T.C., Zhao, H., Hankins, M.W., Berson, D.M., Lucas, R.J., Yau, K.-W., Hattar, S. Melanopsin cells are the principal conduits for rod-cone input to non-image-forming vision. *Nature*. 2008; 453:102-105.
- Güler, A.D., **Altimus, C.M.**, Ecker, J.L., Hattar, S. Multiple photoreceptors contribute to non-image forming visual functions predominantly through melanopsin-containing retinal ganglion cells. *Cold Spring Harbor Symposia on Quantitative Biology*, Volume LXXII. 2007;72:509-15.
- Yu, Y., Dong, W., **Altimus, C.M.**, Tang, X., Griffiths, J., Morello, M., Dudek, L., Arnold, J., Schuttler, H.B. A genetic network for the clock of *Neurospora crassa*. *PNAS*. 2007; 104: 2809-2814.

## Invited Presentations

- Altimus, C.M.**, Güler, A.D., Villa, K.L., Hattar, S. (2008) Melanopsin containing retinal ganglion cells are involved in acute induction of sleep in response to ambient light changes. Spoke at both the annual meeting of the Society for Neuroscience and the Sleep and Circadian Biology Datablitz, an auxillary event of 20 speakers, in Washington D.C.
- Altimus, C.M.** (2008) Linking Light to Behavior: Light effects on physiological functions such as sleep and mood. Special Seminar, Biology Departmental Retreat, Johns Hopkins University.
- Altimus, C.M.** (2008) Light modulates sleep through rods/cones and melanopsin independent of image. Invited by the Johns Hopkins Dean of Research to Brain and Psychological Sciences Department for the weekly departmental seminar.
- Altimus, C.M.**, Dudek, L., Schuttler, H.B., Arnold, J. (2004) Modeling and analysis of the biological clock in *Neurospora crassa*. International Meeting for Neurospora Research, Monterey Bay, CA.

## Poster Presentations

- Altimus, C.M.**, Villa, K.L., Güler, A.D., Hattar, S. (2008) Retinal circuitry underlying acute light effects on sleep. Keystone Meeting for Genetics and Biochemistry of Sleep, Tahoe, CA.
- Altimus, C.M.**, Ecker, J.L., Güler, A.D., Lall, G.S., Lucas, R.J., Hattar, S. (2007) Melanopsin-containing retinal ganglion cells are the principal conduits for rod/cone light responses for circadian photoentrainment and pupillary light reflex. 72<sup>nd</sup> Cold Spring Harbor Symposium: Clocks and Rhythms at Cold Spring Harbor, NY.
- Altimus, C.M.**, Schuttler, C.M., Arnold, J. (2004) Modeling and Analysis of the biological clock in *Neurospora crassa*. Center for Undergraduate Research Symposium, University of Georgia.

\*Used with permission from the author