

## The University of Vermont

#### POSTDOCTORAL ASSOCIATION

Promoting a culture reflecting the University of Vermont Common Ground that facilitates professional development, broadens the training experience, and enhances quality of life for all postdoctoral members at UVM to better serve the community.

Newsletter Vol 2, Issue 2 May 2018

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## **Spring Events**

#### Spring Skiing March 21, 2018

A small but spirited group of postdocs tore themselves from their research for an evening to ski at Bolton Valley for what turned out to be some great spring skiing.



The feel for this event was exactly what we had in mind – all stages of research and researcher coming together in a low-key event. Attendees ranged from undergraduates to senior faculty members, and the research itself had a similar range from published work to recent findings. Some posters came fresh off the plane from an international conference. Others came out from their dusty, familiar places in departmental hallways to be shared with a new audience. One researcher

### Recycled Poster Event

April 26th, 2018

used this opportunity to make a new poster for a wide audience, while others printed out in-progress manuscripts or lab meeting presentations to promote discussion. We had a great time getting together and learning about the diverse research we all do on a daily basis.

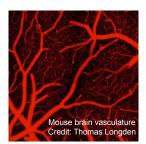


## Postdocs in Action

**Nick Farina** presented recent work identifying small circulating RNA molecules to predict cancer outcomes at both the Regional Biomarkers Conference in Immuno-Oncology in Boston and the UVM Cancer Center Translational Research Seminar. The work was under supervision of Jane Lian and included studies performed by undergraduate Caroline Adam under his mentorship.

**Robyn Maher** presented her research at the DNA Damage, Repair, and Cancer Gordon Research Conference in Ventura, CA. Her work focuses on how repair of DNA is influenced by the stringing of DNA around protein complexes called nucleosomes.





A recent paper published in PNAS by Osama Harraz in the Pharmacology Department of the Larner College of Medicine helps explain how key lipids in the brain "set the gain" on electrical signaling within neuronal capillaries, regulating blood flow and neuronal metabolism.



Valerie Wood in the College of Education and Social Services was promoted to Research Assistant Professor in January with the Center on Disability and Community Inclusion. Her postdoc with Jessica Strolin-Goltzman analyzed practices to improve outcomes for children in welfare as well as in and beyond the adoption



process. Current work aims to understand the social practices and factors at the core of positive youth development such as inclusion and conflict management

Heidi and Andrew Malaby led roughly 80 high school students in activities demonstrating protein folding and structure as part of the VTeen 4H Science Café. These events are in conjunction with Vermont 4H and the UVM Extension Program. If you are interested in leading a Café on your own research, contact Lauren Traister at <a href="mailto:lauren.traister@uvm.edu">lauren.traister@uvm.edu</a>.

#### **UVM PDA Annual Meeting**

May 29<sup>th</sup>, 4pm Davis 403

#### Williams Family Community Room

Our annual meeting will be a chance to discuss ongoing work and future endeavors for the UVM PDA. We will announce officer election results, discuss the association bylaws, and have an open comment period. Refreshments will be served.

Nominations are now being accepted for:

To nominate yourself, send the following to <a href="mailto:postdocs@uvm.edu">postdocs@uvm.edu</a>:

Co-chairs (2) Treasurer

Webmaster Brief

Secretary
Public Relations

Position(s) running for

Photo

Brief description of qualifications

1-2 sentence platform

Nominations close May 15th. Online voting May 18th - 28th.

### **Upcoming Events**

SPARK-VT workshop: "Introduction to Venture Capital" Ross Jaffe, MD Lafayette 408, 10:30am

May 10

LCOM Career Matters: Joe Clayton, Principle Scientist, Bio-Tek

HSRF 300, 12pm

May 16

UVM-PDA Annual Meeting Williams Family Community Room Davis 403, 4pm



I-TREP Entrepreneurship Course
Application Deadline, May 8th



## Career Building Resources

#### Set Goals

ImaginePhD is a recently developed tool to help humanities postdocs with career planning. Similar in scope and design to myIDP for the STEM fields, it guides the user through self-reflection, planning, and pursuit of their Individual Development Plans for career advancement.

#### Reach Out!

The Larner College of Medicine has <u>several event templates</u> for use in publicizing you or your department's events. Send completed templates to <u>Madison Wood</u> to get your slide in the rotation on the Larner Med announcement screens.

Want to broaden your base? Consider announcing your event in the weekly university-wide emails or in a sister department.

#### Stay Focused

Charlie Irvin, Associate Chair for Research Affairs in the Department of Medicine recently gave broadly-applicable talks on Predatory Journals and Chairing Committees. Beware of predatory journals that target early career researchers with flattery and gimmicks of quick review turnarounds. Even with well meaning pro bono work, clear expectations are a must. For academic committees, clear focus and a firm tact through prioritization is essential to stay efficient and productive.

The full suite of Career Matters and Research Tapas talks can be found here.

## Featured Postdoc: Menelaos Symeonides

by Franzi Uhl

Today I would like to introduce Menelaos (Mel) Symeonides as our next featured postdoc. If that sounds Greek to you, you are right, he is actually from Cyprus, a small island in the Mediterranean Sea. Only God knows why he moved to Vermont, trading lots of sun and sea for snowstorms and freezing temperatures. He really seems to like it here though. He joined UVM for his PhD in 2009 in the CMB program and moved on to a postdoc position in 2015 under the supervision of Markus Thali. You can find Mel in Stafford Hall working with various microscopes, most recently with a light sheet microscope seen below. In light sheet fluorescence microscopy (or single plane illumination microscopy), the sample is illuminated at right angles to the detection axis, rather than through the detection objective. Only a small, very focused (about 1-2 µm thick) sheet of excitation light is formed in alignment with the focal plane of the detection objective. Therefore, unlike with confocal scanning microscopy, the whole field can be imaged at the same time, allowing very rapid epifluorescence-like imaging speeds (but without needing to illuminate the entire sample



column just to image one focal plane), along with confocal-like sectioning. This also benefits in the area of exposure time which can be kept extremely short, making light sheet microscopy very useful for long term, large-volume live cell imaging,



Light sheet microscope with Illumination at right angles to the detection axis.

minimizing phototoxicity and photobleaching. Further, it can be adapted for super-resolution imaging (by structured illumination, using the lattice light sheet format). Next to light sheet microscopy, Mel also has lots of experience with various other fluorescence-based methods including flow cytometry and epifluorescence microscopy for both live and fixed samples. While studying Genetics at the University of York in York, UK, Mel spent a year working at AstraZeneca, looking for promoter hypermethylation in breast and ovarian cancer, as part of his degree work. He finished his undergraduate studies with an Honors project on Drosophila flight muscle biology. Since Mel wanted to do a PhD, and his undergrad thesis advisor had spent a sabbatical at UVM, he came here to study HIV transmission and HIV-induced syncytia with Markus Thali in the MMG department. Syncytia are the product of cell-cell fusion, and occur as part of normal physiology as well as during infection. One example is osteoclast cells, which develop from self-fusing macrophages and can have between 2 and 10 nuclei. In the case of HIV infection, cell-

cell fusion is now emerging as a previously unappreciated major facet of *in vivo* pathogenesis. We now know that ~20% of HIV-infected T cells in the lymph node are multinucleated, with 2 to 5 nuclei. Mel has been investigating how host factors are utilized by HIV to repress cell-cell fusion, thus possibly enhancing its fitness. His latest work (also utilizing light sheet microscopy) focuses on the population-level effects of cell-cell fusion during HIV infection and spreading. Working with HIV requires a BSL2+ lab, which involves some additional safety precautions like autoclaving of all waste before removal from the lab, bleaching of all liquids, and lab access restriction to people who have received appropriate training. It is not as bad as in movies like *Outbreak* but that image might give a sense for the differences to an ordinary lab. Mel's passions next to working in the lab are his two cats, growing vegetables, cooking, and playing guitar (although he does not have a band right now).

Contact: Menelaos.Symeonides@uvm.edu

Phone: +1 802 656 1161

#### **Call for Volunteers**

The UVM-PDA strives to be both a professional resource and an encouraging community to actively grow the careers and lives of all postdocs. With this in mind, we are organizing several opportunities to share expertise and expand communication skills. Opportunities include group blogging, peer-led workshops, flash talk sessions, and behind-the-scenes work connecting postdocs to new career growth opportunities on and off the UVM campus. Email postdocs@uvm.edu for more information or to volunteer.

# email. Our next meeting is: May 17<sup>th</sup> 12pm, HSRF 200

Join Us!

Meetings are in the Larner College of

Medicine (including Given, HSRF, and adiacent research buildings.) Meetings

are announced here and by group

All postdocs are welcome! For more details, email postdocs@uvm.edu.





