

IMMUNOLOGY

Lerner Research Institute

How do you keep your lab Engaged?

We have been inundated with the new phrase “Employee Engagement”. Trine Jorgensen has taken this to the next level. This summer the Jorgensen lab visited Mohican State Park for a team building retreat. Let’s take a look at how Dr. Jorgensen and her lab embrace being a team.

Trine, I understand that your lab takes an annual day away from the lab. What brought this idea to be an annual event? Team-building activities are important for any group of people working closely together – and having to steer a raft is definitely a team-building event! We had lots of fun and very wet shoes (at least). Our only complaint was that the trip only took 1.5 hour, and that even included getting stuck in shallow water and waiting for Justin, who decided to go for a swim...

What was your destination last year? Last year we visited Laura’s mothers alpaca farm (Alpaca Galaxy Suri Ranch) in Butler, Ohio, where we learned all about Alpacas and had the most wonderful home-baked cake.... That was also a really nice trip to a beautiful part of Ohio.

Any memorable moments to share? Several – like when Justin’s GPS had us all drive a 3 mile loop just to end up 200ft from where we started, or when Abhishek was pulled in the water – sunglasses and all, or when any of us ended up using more than 10 hits at the mini-golf course (it’s a requirement, that anyone in my lab has to be really, really bad at playing mini-golf....)



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How does a trip like this impact your lab? I believe that people are more likely to collaborate and share during everyday tasks, if they can also share fun memories. So for the group dynamics, it’s important to do stuff like this. We also have an annual lab-BBQ in June for past and present members of the lab and their spouses/kids. And this summer, the lab-crew got together and wrote a lab-rap, which you can check out on our web-site. It’s phenomenal!

Grants/Awards/Supplements



James Finke

Grant Title: Pazopanib Modulation of Immune Cells in Patients with Renal Cell Carcinoma

PI: James Finke

Total Cost: \$160,640

Funding Agency: Glaxo Smith Kline

Dates: 06/2011 – 06/2016

Grant Title: Defining the Role of Myeloid Derived Suppressor Cells (MDSC) and IL8 in Promoting Angiogenic-Mediated Resistance to Sunitinib in RCC Patients

PI: James Finke

Total Cost: \$156,410

Funding Agency: Pfizer

Dates: 05/2011 – 06/2013

Grant Title: Mechanisms of suppression of Lupus in Genetically Predisposed Males

PI: Trine Jorgensen

Total Cost: \$1,085,172

Funding Agency: Department of Defense

Dates: 09/2011 – 08/2014



Trine Jorgensen



Brian Gastman

Grant Title: Tumor Induced Senescent and Suppressor T Cells – A Novel Mechanism of Immune Evasion

PI: Brian Gastman

Total Cost: \$962,800

Funding Agency: NIH/National Cancer Institute

Dates: 05/2011 – 07/2013

Grant Title: Induction of Tolerance by Myeloid Derived Suppressor Cells

PI: Ritika Jaini

Total Cost: \$44,000

Funding Agency: Multiple Sclerosis Grant

Dates: 06/2011 – 05/2012



Ritika Jaini

Grants/Awards/Supplements

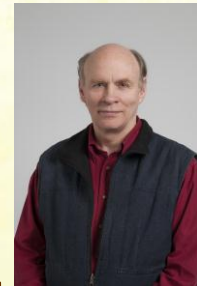


Xiaoxia Li

Grant Title: Asthma Inflammation Research
Project 2 Leader: Xiaoxia Li
Total Cost: \$2,294,140
Funding Agency: NIH/PPG (Serpil Erzurum, PI)
Dates: 08/2011 – 06/2016

Grant Title: Molecular and Cellular Mechanisms of IL-17 Signaling
PI: Xiaoxia Li
Total Cost: \$2,049,160
Funding Agency: NIH/National Institute of Neurological Disorders and Stroke
Dates: 04/2011 – 03/2016

Grant Title: Adiponectin Bridges Metabolic and Immunologic Mechanisms in Cardiac Allograft Vasculopathy
PI: William Baldwin
Total Cost: \$118,600
Funding Agency: Roche Organ Transplantation Research Foundation
Dates: 07/2011 – 07/2012



William Baldwin



Neetu Gupta

Supplement Grant Title: Regulation of B Cell Function by Membrane-Cytoskeletal Remodeling
PI: Neetu Gupta **Student:** Gospel Enyindah-Asonye
Total Cost: \$119,926
Funding Agency: Supplemental Grant to Promote Diversity in Health Related Research
Dates: 07/2011 – 06/2013



Gospel Enyindah-Asonye

Invited Speakers & Presentations

Dr. Yusuke Hattori presented to the Genzyme Annual Fellows Conference, Advances in Organ Transplantation at the Genzyme Center in Cambridge, Massachusetts. Title of Talk: *“Rejection of single class I MHC Disparate Heart Allografts in CCR5 Deficient Recipient.”*

Dr. William Baldwin gave a Post-graduate course at the International Society for Heart Lung Transplantation held in San Diego, CA. Title of Course: *“Role of Complement-Fixing and Non-Complement-Fixing Antibodies”*

Dr. Li-Xin Wang presented a poster at the American Association for Cancer Research at the Orange County Convention center in Orlando, Florida. Title of Poster: *“Therapy of spontaneous primary breast tumors in neu-N transgenic mice by adoptive transfer of vaccine-primed LN T cells also induces a humoral response.”*

Chou H-S, Hsieh C-C, Fung JJ, Lu L, Qian S. *Myeloid Suppressor Cells in Transplant Tolerance: Exploring Clinical Application Potential and Molecular Cellular Mechanisms.* Presented at 2011 American Transplant Congress at Philadelphia, PA April 30-May 4, 2011.

Yusuke Arakawa, Ching-Chuan Hsieh, Hong-Shiue Chou, John J. Fung, Lina L, Shiguang Qian. *Systemic Administration of Myeloid Suppressor Cells Induces Immune Tolerance and Prolongs Islet Graft Survival.* Presented at 2011 American Transplant Congress at Philadelphia, PA April 30-May 4, 2011.

Ronald Charles, Hong-Shiue Chou, Lianfu Wang, John J. Fung, Shiguang Qian, Lina Lu, *Human Hepatic Stellate Cells Inhibit T-cell Proliferation through B7-H1 Pathway.* Presented at 2011 American Transplant Congress at Philadelphia, PA April 30-May 4, 2011.

Dr. Jim Finke presented to the Ohio State University Comprehensive Cancer Center. Title of Talk: *“Myeloid-Derived Suppressor Cells in Cancer Progression; Promotion of T-Cell Immunity by the TKI, Sunitinib.”*

Dr. Xiaoxia Li was an invited speaker at the American Asthma Foundation in San Francisco, CA. Title of talk: *“Molecular Mechanisms for IL-25-mediated Th2 Responses.”*

Dr. Xiaoxia Li was an invited speaker at The IL-1 Family of Cytokines: From Basic Biology to Clinical Application Program, where she presented the talk entitled: *“SIGIRR/TIR8”*

Dr. Robert Fairchild was invited to speak at the Transplantation Society Basic Science Symposium, where he presented the talk: *“T Cell Recruitment to Allografts and Tissues”*

Katayoun Ayasoufi presented a poster to the Basic Science Symposium 2011 in Boston, MA. Title of poster: *“Pre-transplant administration of anti-thyneoeyte globulin increases its efficaer in inhibiting anti-donor T cell responses”*

Sumantha Bhatt presented a poster to the Basic Science Symposium in Boston, MA. Title of Poster: *“Neutralizing BAFF and APRIL in combination with anti – CD154Ab treatment and CD8 T Cell depletion induces long term cardiac allograft survival in mice containing memory CD4T Cells.”*

Dr. James Finke was an invited speaker for the Kidney Cancer Program at the Harvard Cancer Center in Boston. Title of Talk: *“Sunitinib Regulation of Myeloid Derived Suppressor Cells in Caner; Impact on Immune Function “*

Invited Speakers & Presentations Cont'd.



Presenters and Posters for the 98th Annual American Association of Immunologists Meeting are listed below:

Presenter	Title of Presentation or Poster
Dr. Jeong-Su Do	<i>"Generation of Colitogenic TH17 CD4 T Cells and experimental Colitis is Enhanced Cells."</i>
Anabelle Visperas	<i>"Lymphocyte Differentiation and Peripheral Maintenance."</i>
Dr. Booki Min	<i>"Memory CD4 T cells induce selective expression of IL-27 in CD8+ dendritic cells and maintain.."</i>
Dr. Thomas Hamilton	<i>"Signaling pathways for IL-17-mediated chemokine mRNA stabilization."</i>
Dr. Anton Gorbachev	<i>"Expression of CXCL9/Mig in the tumor microenvironment is critical for recruitment of CD8T cells and suppression of cutaneous tumors."</i>
Danielle Kish	Title of Poster: <i>"Hapten application to the skin induces an inflammatory program directing hapten-primed effector CD8T cell interaction with hapten-presenting endothelial cells."</i> Danielle was asked to give an oral presentation on poster entitled: <i>"Defective neutrophil function underlies the absence of T cell recruitment into challenge sites during elicitation of contact sensitivity in gld/perforin-/- mice."</i>
Dr. Xiaoxia Li & Dr. Thomas Hamilton Co-Chaired session entitled:	<i>"Emerging Paradigms in Inflammatory Signaling."</i>
Dr. Xiaoxia Li	<i>"The role of IL-1-induced mTOR activation in Th17 cell expansion"</i>
Dr. Robert Fairchild – Chaired Session entitled:	<i>"Integrins as an Effective Target in Alloimmune Responses"</i>
Dr. Neetu Gupta	<i>"Conformational switching in ezrin regulates morphological and cytoskeletal changes required for B cell chemotaxis"</i> <i>"The ERM family protein Ezrin associates with the JNK signaling complex to regulate its activation and antigen-dependent B cell survival"</i>

Publications

Altuntas CZ, Daneshgari F, Sakalar C, Goksoy E, Gulen MF, Kavran M, Qin J, Li X, Tuohy VK. Autoimmunity to Uroplakin II Causes Cystitis in Mice: A Novel Model of Interstitial Cystitis. Eur Urol. 2011 Jun 28. [Epub ahead of print]

Altuntas CZ, Jaini R, Kesaraju P, Jane-Wit D, Johnson JM, Covey K, Flask CA, Dutertre M, Picard JY, Tuohy VK. Autoimmune mediated regulation of ovarian tumor growth. Gynecol Oncol. 2011 Oct 16. [Epub ahead of print]

Baldwin WM 3rd, Halushka MK, Valujskikh A, Fairchild RL. B cells in cardiac transplants: From clinical questions to experimental models. Semin Immunol. 2011 Sep 19. [Epub ahead of print]

Bosch, X. F. Lozano, R. Cervera, M. Ramos-Casals, and B. Min. (2011) Basophils, IgE and autoantibody-mediated kidney disease. J. Immunol. 186:3083-6090.

Bradley JA, Baldwin WM, Bingaman A, Ellenrieder C, Gebel HM, Glotz D, Kirk AD. Antibody-Mediated Rejection-An Ounce of Prevention Is Worth a Pound of Cure. Am J Transplant. 2011 Jun;11(6):1131-1139

Publications Cont'd.

Bulek, K., Liu, C., Swaidani, S., Wang, L., Page, R.C., Gulen, F.T., Herjan, T., Abbadi, A., Qian, W., Sun, D., Lauer, M., Hascall, V., Misra, S., Chance, M., Hamilton, T., Li, X., IKK epsilon is required for Interleukin 17-dependent signaling associated with neutrophilia and pulmonary inflammation. Nature Immunol 12: 844-852, 2011

Cherkassky L, Lanning M, Lalli PN, Czerr J, Siegel H, Danziger-Isakov L, Srinivas T, Valujskikh A, Shoskes DA, Baldwin W, Fairchild RL, Poggio ED. Evaluation of alloreactivity in kidney transplant recipients treated with antithymocyte globulin versus IL-2 receptor blocker. Am J Transplant. 2011 Jul;11(7):1388-96. Doi: 10.1111/j.1600-6143.2011.03540.x. Epub 2011 May 12.

Do, J., A. Visperas, C. Dong, W. Baldwin, and B. Min. (2011). Cutting Edge: Generation of colitogenic Th17 CD4 T cells is enhanced by IL-17+ gamma delta T cells. J. Immunol. 186:4546-4550.

Do, J., A. Visperas, R. L. O'Brien, and B. Min. (2011). CD4 T cells enhance the generation of IL-17+ gamma delta T cells. Immunol. Cell. Biol. AOP.

Giltiay NV, Lu Y, Allman D, Jørgensen TN, Li X. The adaptor molecule Act1 regulates BAFF responsiveness and self-reactive B cell selection during transitional B cell maturation. J Immunol. 2010 Jul 1;185(1):99-109. Epub 2010 Jun 11.

Matsui K, Parameswaran N, Bagheri N, Willard B, Gupta N. 2011 Proteomics analysis of the ezrin interactome in B cells reveals a novel association with Myo18ax. J. Proteome Res. 10:3983-3992.

Moche JA, Chopra K, Gastman B. Vascularized free fibula for cervical spine reconstruction following complicated retropharyngeal abscess. Otolaryngol Head Neck Surg. 2011 Jul;145(1):178-9.

Setoguchi K, Schenk AD, Ishii D, Hattori Y, Baldwin WM 3rd, Tanabe K, Fairchild RL. LFA-1 antagonism inhibits early infiltration of endogenous memory CD8 T cells into cardiac allografts and donor-reactive T cell priming. Am J Transplant. 2011 May;11(5):923-35. doi: 10.1111/j.1600-6143.2011.03492.x. Epub 2011 Apr 5.

Sun, D., Novotny, M., Bulek, K., Liu, C., Li, X., and Hamilton, T. Treatment with IL-17 prolongs the half-life of chemokine CXCL1 mRNA via TRAF5 and the splicing regulatory factor SF2(ASF). Nature Immunol 12: 853-860, 2011

Swaidani S, Bulek K, Kang Z, Gulen MF, Liu C, Yin W, Abbadi A, Aronica M, Li X. T cell-derived Act1 is necessary for IL-25-mediated Th2 responses and allergic airway inflammation. J Immunol. 2011 Sep 15;187(6):3155-64. Epub 2011 Aug 19.

Wu L, Zepp J, Li X. Function of Act1 in IL-17 Family Signaling and Autoimmunity. Adv Exp Med Biol. 2012;946:223-35.

Zepp J, Wu L, Li X. IL-17 receptor signaling and T helper 17-mediated autoimmune demyelinating disease. Trends Immunol. 2011 May;32(5):232-9. Epub 2011 Apr 12. Review.

Zhang Y, Pfannenstiel LW, Bolesta EB, Montes C, Zhang X, Chapoval AI, Gartenhaus RB, Strome SE, Gastman BR. Interleukin-7 inhibits tumor-induced CD27-CD28- suppressor T cells: implications for cancer immunotherapy. Clin Cancer Res. 2011 Jun 28.

Department News & Fun Facts



Welcome

Toyofumi Abe

Postdoctoral Fellow – Fairchild Lab

Mike Berk

Lead Technologist – Plautz Lab

Kevin Chandler, MD

Urology Fellow – Finke Lab

Avinash Danda

Volunteer – Gupta Lab

Abeba Demelash, Ph.D.

Postdoctoral Fellow – Gastman Lab

Evan Der

Under Grad Student - Jorgensen Lab (Started as a summer student)

Gospel Enyindah-Asonge

Molecular Medicine Student – Gupta Lab

Michael Freeman

Research Associate – Min Lab

Justin Jones

Under Grad Student – Jorgensen Lab

Shoichi Iida

Postdoctoral Fellow – Fairchild Lab

Jin Ma

Technologist, Li Lab

Miwa Morita, Ph.D.

Postdoctoral Fellow – Lu/Qian Lab

Jie Qie, Ph.D.

Postdoctoral Fellow – Lu/Qian Lab

Debasis Pore, Ph.D.

Postdoctoral Fellow – Gupta Lab

Simon Schlanger

Grad Student – Gastman Lab

Maksim Sinyuk

Technician – Min Lab

Charles Su

Grad Student - Fairchild Lab (started as a summer student)

Megan Tobin

Technician – Gastman Lab (started as a summer student)

Yu Yang

Senior Technologist – Finke Lab

Junjie Zhao

Molecular Medicine Student – Li Lab

Cleveland Clinic's breast cancer vaccine research fund is charity of choice:

Tami Boehmer, cancer survivor and author of *From Incurable to Incredible: Cancer Survivors Who Beat the Odds*, won a \$5,000 award, to donate to her charity of choice. She chose the breast cancer vaccine research fund at Cleveland Clinic. She will be available October 7 at noon for a book signing at Joseph Beth in the Miller Pavilion. **Vince Tuohy, PhD**, Immunology, the researcher behind the breast cancer vaccine, will kick off the signing by purchasing the first book to be signed.

Special Thanks...

Bake Sale

The following employees donated their time and money in support of the Bolton Elementary School Supply Drive:

**Nina Volokh, Ritika Jaini
Sumantha Bhatt, Pat Rayman
Gail Lannum, Charlie Tannenbaum,
Kathleen Brown, Ling Lu
Joanna Ireland, Ken Matsui
Ayesha Khan, Danielle Kish
Jan Kodish, Lisa Franklin**

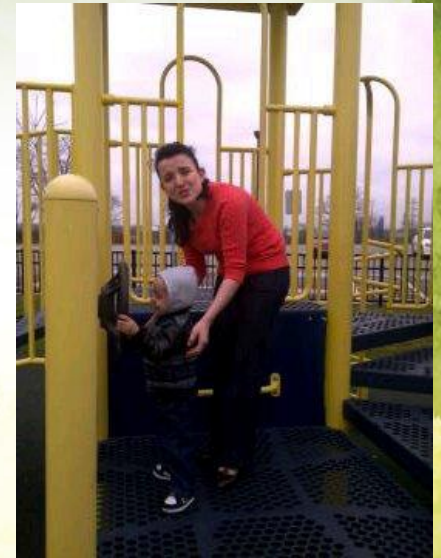
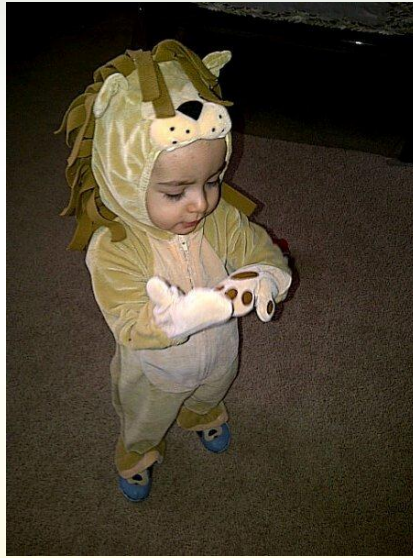
Special Thanks...

Jan Kodish – Roving Reporter

Thanks for the news articles presented

Getting to know our Post Docs

Cagri Sakalar



What a happy family!! Can you guess who the Dad is? It's Cagri Sakalar, Post Doc in Vince Tuohy's lab!

A true family man, Cagri, his wife Tugba and son Yusuf (20 months old) enjoy going to the many branches of the Metro Park system where they can enjoy the outdoors. Cagri and his family appreciate the many outdoor activities we have here in Cleveland.

In his leisure time, Cagri plays chess as well as reading. He is looking forward to teaching his son to play chess.

Cagri and his family enjoy all animals. A family pet of the dog variety is definitely in their future!

Education was the key to discovering Cagri's love for travel. High school years were spent in Istanbul (most historic and biggest city in Turkey). Undergraduate studies in Ankara (capital of Turkey) and graduate work was spent in Dresden, Germany. Cagri's most memorable trip was the one to Istanbul, in which he tried to visit as many historical places as possible, many of which had few visitors and were unexplored in contrast to the very popular ones.

If Cagri won the lottery he would buy or start a biotech company for medical research.

Cagri enjoys music, and listens to various artist's including James Blunt, Pink, Sting and Evanescence. His favorite concert was while in college in Turkey, he attended a concert for a popular Turkish popstar Yasar.

Favorite movies would be Brave Heart, Terminator and Red Dragon.

Cagri's enjoys soccer Galatasaray (Turkish Soccer Team), Dynamo Dresden (German Soccer Team), and hopes to take his family to watch the Cleveland Cavaliers.

Getting to know our Post Docs

Ritika Jaini



As the pictures above illustrate Ritika's love for being around nature, especially any place around water; lake, ocean, stream- doesn't matter. The distance doesn't matter as Ritika enjoys driving. Road trip here we come!

Ritika enjoys traveling. Her most memorable vacation was a trip to the Lachung Valley in the Sikkim area, north east of India. She says "It stays in my memory just for the experience of pristine natural beauty and tranquility. The unbelievable vastness put everything in perspective about any illusions one might have about one's own greatness".

To relax after work, Ritika enjoys watching movies, listening to music, and cooking sometimes. Although please note, no horror and war movies please! The best concert she attended was The Cleveland Orchestra's Christmas, 2003 concert.

If in the record store, Ritika would wander around trying to find old Hindi music from the 50's and 60's (favorite singer Talat Mahmood), Ghazals, Bob Dillon, the Beatles, and now Mumford and Sons which are a new favorite.

Movies are another interest. All time favorites are: On the Waterfront, Guys and Dolls (Marlon Brando!!!), Pirates of the Caribbean, Casablanca, Remember Me. She hates to admit it but can't miss Pride and Prejudice every time it is on TV!!!

The only reason she would leave the lab early is to watch a game of tennis, favorite players are Novak Djokovic and Roger Federer.

Cape Canaveral



Myrtle Beach

