

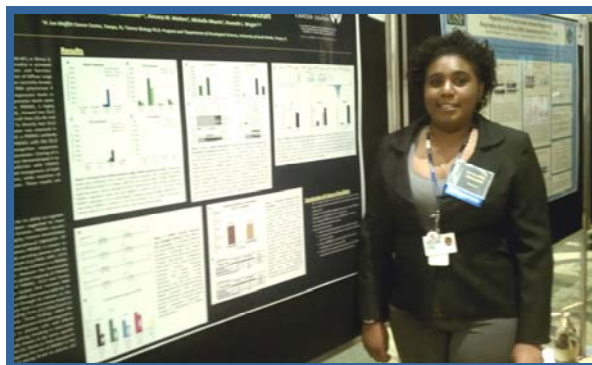


# Spring 2012

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## Awards

Several students received prestigious awards this semester. They are:



Lou-Ella Alexander and her poster at USF Health Research Day

**Lou-Ella Alexander**, Wright lab, received the Outstanding Poster Award in the Allergy, Immunology & Infectious Diseases category at the annual USF Health Research Day on February 24, 2012. Her poster title was: *"PRDM1/Blimp-1 Regulates Expression of Transcriptional Elongation Factor ELL3 in B-Cell Differentiation"*.



Jessica McDaniel

**Jessica McDaniel**, Burnette lab, was one of the 42 graduate students selected nationwide to attend the annual St. Jude National Graduate Student Symposium March 20-24 in Memphis, TN. More than 1,500 students applied to attend.



From left: Cancer Biology Program Director Dr. Ken Wright, award recipient Kim Paraiso, Kim's mentor Dr. Keiran Smalley and Dr. Jeffrey Weber, head of the Melanoma Center at Moffitt

**Kim Paraiso**, Smalley lab, was among 9 graduate researchers selected nationally in March to receive a \$10,000 Research Scholar Award from the Joanna M. Nicolay Melanoma Foundation. The 2012 RSA applicant pool included 42 of the country's most promising young melanoma researchers representing 28 prominent National Cancer Institute (NCI)-Designated Cancer Centers or members of the Association of American Cancer Institutes (AACI).



Valentina Schneeberger

**Valentina Schneeberger**, Wu lab, received a \$1,300 Travel Award from the Research, Training and Education Core (RTEC) of the Center for Equal Health at USF. Valentina used her award to attend the AACR meeting in Chicago March 31-April 4.

# Congratulations to All!

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## Courses

- **Current Topics in Oncology**  
Jia Fang is course director this Fall
- **Advances in Cancer Biology**  
Nupam Mahajan is the course director for the Spring
- **Cancer Biology II**  
Shari Pilon-Thomas returns as course director for the Spring
- **Cancer Biology Lab Rotations**  
Gary Reuther serves as Course Director for Lab Rotations
- **Clinical Trials** – Doug Cress is Course Director
- **OR Observation** – Students have the opportunity to observe surgery with one of seven Moffitt surgeons. Students must meet certain requirements for the observation and interested students should email Cathy Gaffney.

## Students

### First year students lab rotations:

- **Jeremy McGuire** – Bai lab
- **Courtney Schaal** – Yu lab

### Students who have selected their Major Professors:

- **Lisa Blumencranz** – Lori Hazlehurst, Ph.D.
- **Jie Chen** – Dmitry Gabrilovich, M.D., Ph.D.
- **Kim Paraiso** – Keiran Smalley, Ph.D.

## CBSO

The CBSO is currently holding a T-Shirt design contest, the winner of which will have his or her logo printed on the official Miles for Moffitt CBSO T-shirt and will also win a free T-Shirt. The CBSO team for this year's Miles for Moffitt will be called the "Hip Hop Hypothesis" and anyone participating in this year's race is invited to join the CBSO team.

The CBSO wants to thank **Lori Griner, Kyle Bauckman, Jessica McDaniel, Brienne Engel, Crystina Bronk, Vito Rebecca, Salahuddin Syed and Valentina Schneeberger** for participating in this year's Great American Teach In at Oakgrove & Justice Elementary Schools. CBSO members **Crystina Bronk, Nicole Fortenbery, Kyle Bauckman, Kathy McGraw and Lori Griner** also served as judges for the Hillsborough County Regional K-12 science fair. Their help was greatly appreciated by the event coordinators, the teachers and the children.

You can see more about the CBSO by visiting their website:

<http://ctr.usf.edu/cbso/> .

# Publications

## REMINDER

Students should include the Program in the author affiliations of all papers and abstracts. Example: "H. Lee Moffitt Cancer Center, Tampa, FL and the Cancer Biology Ph.D. Program, University of South Florida, Tampa, FL".

## Submitted:

**Jessica M. McDaniel**, Javier Pinilla-Ibarz, and PK Epling-Burnette. *Molecular action of lenalidomide in lymphocytes and hematologic malignancies*. Adv. in Hematology (Submitted). Review.

**McGraw, Kathy L.**, Zhang, Lan Min, Rollison, Dana E., Jerez, Andres, Billingsley, Debbie L., Lin, Hui-Yi, Rawal, Bhupendra, Kurtin, Sandra E., Clark, Justine A., Caceres, Gisela C., Sokol, Lubomir, Basiorka, Ashley A., Epling-Burnette, PK, Guinta, Kathryn, Mallo, Mar, Sole, Francesc, Calasanz, Maria J., Cervera, Jose, Such, Esperanza, Gonzalez, Teresa, Sung, Sandy, Nevill, Tom J., Karsan, Aly, Maciejewski, Jaroslaw P., and List, Alan F. *TP53 R72P Polymorphism is Associated with Predisposition to Myelodysplastic Syndrome with Chromosome 5q Deletion*. Under Review, Submitted 03/08/2012, MS #BLOOD/2012/416230

Caceres, Gisela C., Robey, Robert W., Sokol, Lubomir, **McGraw, Kathy L.**, Clark, Justine A., Lawrence, Nicholas J., Sebti, Said, Wiese, Michael, and List, Alan F. *HG-829 – A Novel and Potent Non-Competitive Inhibitor of the ATP-Binding Cassette Multidrug Resistance Transporter ABCB1*. Under Review, Submitted 02/24/2012, MS #CAN-12-0743

## Published or in press:

**Paraiso KHT** and Smalley KSM. *Making sense of MEK1 mutations in intrinsic and acquired BRAF inhibitor resistance*. In the Spotlight commentary for Cancer Discovery. Accepted for publication.

Kudchadkar R, **Paraiso KHT** and Smalley KSM. *Targeting Mutant BRAF in Melanoma: Current Status and Future Development of Combination Therapy Strategies*. The Cancer Journal. Accepted for publication.

**Paraiso KH**, John J, Smalley KS. *Skin Cancer and Melanoma, Biotargets of Cancer in Current Clinical Practice*, M. Bologna Editor, Springer/Humana Press, New York, April 2012, in press.

**Jessica M. McDaniel**, JianXiang Zou, William Fulp, Dung-Tsa Chen, Alan F. List, PK Epling-Burnette. *Reversal of T-cell Tolerance in Myelodysplastic Syndrome through Lenalidomide Immune Modulation*. 2011. Leukemia. In Press. (e-pub ahead of print)

Wei, Sheng, Chen, Xianghong, **McGraw, Kathy L.**, Zhang, ling, Komrokji, Rami, Clark, Justine, Caceres, Justine, Billingsley, Debbie, Sokol, Lubomir, Lancet, Jeffrey, **Fortenbery, Nicole**, Zhou, Junmin, Eksioglu, Erika, Sallman, David, Wang, Huaquan, Epling-Burnette, Pearlie, Djeu, Julie, Maciejewski, Jaroslaw, Sekeres, Mikkael, and List, Alan. *Lenalidomide Promotes p53 Degradation by Inhibiting MDM2 Auto-ubiquitination in Myelodysplastic Syndrome with Chromosome 5q Deletion*. *Oncogene*, MS#ONC-2011-01840R, In Press

**Rebecca VW**, Sondak VK, Smalley KS. *A brief history of melanoma: from mummies to mutations*. *Melanoma Res*. 2012 Apr;22(2):114-22. PMID: 22395415

**Paraiso KH**, Haarberg E, Wood E, **Rebecca VW**, Chen YA, Xiang Y, Ribas A, Lo RS, Weber JS, Sondak VK, John J, Sarnaik AA, Koomen J, Smalley KS. *The heat shock protein-90 inhibitor XL888 overcomes BRAF inhibitor resistance mediated through diverse mechanisms*. *Clin Cancer Res*. 2012 Feb 20. PMID: 22351686

Flach EH, **Rebecca VW**, Herlyn M, Smalley KS, Anderson AR. *Fibroblasts contribute to melanoma tumor growth and drug resistance*. *Mol Pharm*. 2011 Dec 5;8(6):2039-49. PMID: 22067046

**Paraiso KH**, Xiang Y, **Rebecca VW**, Abel EV, Chen YA, Munko AC, Wood E, **Fedorenko IV**, Sondak VK, Anderson AR, Ribas A, Palma MD, Nathanson KL, Koomen JM, Messina JL, Smalley KS. *PTEN loss confers BRAF inhibitor resistance to melanoma cells through the suppression of BIM expression*. *Cancer Res*. 2011 Apr 1;71(7):2750-60. PMID: 21317224

Sugimoto Y, Sekeres MA, Makishima H, Traina F, Visconte V, Jankowska A, Jeres A, Szpurka H, O'Keefe CL, Guinta K, Afable M, Tiu R, **McGraw KL**, List AF, Maciejewski JP. *Cytogenetic and molecular predictors of response in patients with myeloid malignancies without del[5q] treated with lenalidomide*. *J Hematol Oncol*. 2012 Mar 5;5(1):4.

**Johnson JL**, Pillai S, Pernazza D, Sebti SM, Lawrence NJ, Chellappan SP. *Regulation of matrix metalloproteinase genes by E2F transcription factors: Rb-Raf-1 interaction as a novel target for metastatic disease*. *Cancer Res*. 2012 Jan 15;72(2):516-26.

**Hopewell EL**, Bronk CC, Massengill M, Engelman RW, Beg AA. *IKK $\beta$ -induced inflammation impacts the kinetics but not the magnitude of the immune response to a viral vector*. *Eur J Immunol*. 2011 Dec 12. doi: 10.1002/eji.201141910.

**McGraw, Kathy L.**, Fuhler, Gwenny M., Johnson, Joseph O., Clark, Justine A., Caceres, Gisela C., Sokol, Lubomir, and List, Alan F. *Erythropoietin Receptor Signaling is Membrane Raft Dependent*. *PLoS One*, April 2012.



Guo, J., Kim, D., Gao, J., **Kurtyka, C.**, Chen, H., Yu, C., Wu, D., Mittal, A., Beg, A. A., Chellappan, S. P., Haura, E. B., Cheng, J. Q. (2012). *IKBKE is induced by STAT3 and tobacco carcinogen and determines chemosensitivity in non-small cell lung cancer*. *Oncogene*. 2012 Feb 13. doi: 10.1038/onc.2012.39.

## Funding

### Applications:

**Jianing Fu**, Yu lab, has applied for funding from "Student Training and Research in Tumor Immunology (STaRT)" founded by the Cancer Research Institute. Her grant project title is: *Targeting T-bet for GVHD Prevention and GVL Maintenance after Allogeneic Hematopoietic Cell Transplantation*.

## CB Interview Day

On February 24 and 27 a total of ten applicants interviewed with Cancer Biology faculty, had lunch with select students and were hosted to dinner by another group of current students. Applicants are shown below:



Left to right: Caitlin Mincer, Kayla Goliwas, Crystal Conaway, Rayna Rosati, Brent Kuenzi, Katie Mishall, Kelly Hoye, Crystina Kriss, Jessica Scott

## Class for Fall 2012

Five applicants will be admitted in the fall. They are:

- Sridevi Challa, Indian Institute of Technology Madras (BS)
- Brent Kuenzi, University of Wisconsin (BS)
- Andressa Laino, Federal University of Rio de Janeiro (BS)/National Institute of Cancer (MS)
- Katie Mishall, USF (BS)
- January Watters, St. Leo College (BS)

# *Successful Dissertation Defenses*

## *Spring 2012*



Left to right: Co-Major Professor William Kerr,  
Co-Major Professor Dmitry Gabrilovich  
Michelle Collazo, Dissertation Chair Augusto Ochoa

**Michelle Collazo Ruiz** defended her dissertation on January 26, 2012. Dr. Augusto Ochoa, Director, Stanley S. Scott Cancer Center, LSU Health Sciences Center New Orleans served as Michelle's defense chair. Michelle is currently interviewing in New York City.



Left to right: Committee members Doug Cress and Eric Haura,  
Major Professor Srikumar Chellappan, Jackie Johnson,  
Dissertation Chair Philip Hinds and Committee member Said Sebti

**Jacqueline "Jackie" Johnson** defended her dissertation on February 20, 2012. Dr. Philip Hinds, Tufts Medical Center, served as external Chair for the proceedings. Jackie interviewed with several prestigious institutes and will join the lab of Dr. Rene Bernards at the Netherlands Cancer Institute, Amsterdam.



Left to right: Committee members Ken Wright and Xue-Zhong Yu, Emily Hopewell, Major Professor Amer Beg, Committee member Esteban Celis and Dissertation Chair Siddharth Balachandran

**Emily Hopewell** defended her dissertation on March 27, 2012. Dr. Siddharth Balachandran, Fox Chase Cancer Center, served as her external chair. Emily will be interviewing for postdoctoral positions.

## *Upcoming Dissertation Defense*

- **Nicole Fortenbery** - Friday, April 6th, 9:00 a.m., David Murphey Conference Room. Dissertation Chair: Robert Wiltrout, Scientific Director for Basic Science and Director, Center for Cancer Research, NCI, NIH



*Travel*

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**Lori Griner** – Lori was funded by a Cancer Biology Travel Award to attend ASH in San Diego in December and present her poster: *A Mechanistic Rationale for the Use of Statins to Enhance JAK Inhibitor Therapy in MPNs*. Lori N. Griner, Kathy L. McGraw, Joseph O. Johnson, Alan F. List, Gary W. Reuther.



## AACR

The following students were funded by Cancer Biology Travel Awards to attend AACR in Chicago:

**Jeremy Frieling** - *Dissecting the effects of MMP-3 generated PTHrP fragments on osteoblast behavior: implications for prostate to bone metastases.* Jeremy S. Frieling, Lizzie Atomi Pamen, Conor C. Lynch

**Ankita Jhuraney** - *BRCA1 Circos: A visualization tool for BRCA1 missense variants.* Ankita Jhuraney, Aneliya Velkova, Maxime P. Vallee, Renato S. Carvalho, Sean V. Tavtigian, Alvaro N. Monteiro.

**Inna Fedorenko** – *A novel mechanism of microenvironment-mediated drug resistance in BRAF V600E melanoma with loss of PTEN.* Inna V. Fedorenko, Kim H.T. Paraiso, Vito W. Rebecca, Elizabeth Wood, John Koomen, Jane Messina, Keiran Smalley.

**Valentina Schneeberger** – **funded by RTEC CEH award.** "Active SHP2 Mutant Induces Lung Hyperproliferative Lesions and Adenoma in Transgenic Mice". Valentina Schneeberger, Noreen Lueteteke, Alex S. Lopez, Liwei Chen, Derek Radisky, Domenico Coppola, Jie Wu.

## Ovarian Cancer Symposium

**Kyle Bauckman** will use a Cancer Biology Travel Award to attend the Ovarian Cancer Symposium in Pittsburgh in May. The title of his poster is: *Disrupted Autophagic Pathway Alters Cell Survival in Normal Ovarian Cells and Multiple Ovarian Cancer Cell Subtypes.* Kyle Bauckman, Idhaliz Flores, Meera Nanjundan.

## Society for Melanoma Research 2012 Congress

**Vito Rebecca** will be funded by a Cancer Biology Travel Award to present his research at the 2012 Congress of the Society for Melanoma Research in Hollywood, California in November. The title of his poster is: *Akt Inhibition Reinforces the Antitumor Efficacy of Carboplatin and Paclitaxel (CP) in melanomas that are BRAF wild-type by modulating the Balance Between Autophagy and Apoptosis.* Vito W. Rebecca, Ragini Kudchadkar, Keiran S. M. Smalley.

*Always contact Cathy Gaffney in the Cancer Biology Office well in advance of your planned trip for the correct procedure to use the funds. Travel items (airfare, hotel or registration fees) must be handled through the Cancer Biology Program office in order to be covered. A form, Travel Award Request, can be found by clicking this link: [Travel Award App.pdf](#)*

## *Moffitt Scientific Symposium*

Several students will participate in the upcoming Moffitt Scientific Symposium on May 10, 2012. Two students, **Inna Fedorenko** and **Valentina Schneeberger**, have been selected to give oral presentations.

### Poster Presenters:

Title: PRDM1/Blimp-1 Regulates Expression of Transcriptional Elongation Factor ELL3 in B-Cell Differentiation

Presenting Author: **Lou-Ella M.M. Alexander**

Title: Metabolic Features of Tumors Sensitive to Buffer Therapy

Presenting Author: **Kate M. Bailey**

Title: Defining the Requirement for PKC $\theta$  in NF- $\kappa$ B Signaling and CD8 T-cell Activation

Presenting Author: **Crystina Bronk**

Title: Dissecting the effects of MMP-3 generated PTHrP fragments on osteoblast behavior: implications for prostate to bone metastases

Presenting Author: **Jeremy S. Frieling**

Title: T-bet is Critical for the Induction of Acute Graft-Versus-Host Disease through Controlling T Cell Differentiation and Function

Presenting Author: **Jianing Fu**

Title: Rational Use of Statins in the Treatment of Myeloproliferative Neoplasms

Presenting Author: **Lori N. Griner**

Title: CD8+ CD28null T cell Expansion Impairs Lenalidomide Immunomodulatory Function in Myelodysplastic Syndrome (MDS)

Presenting Author: **Jessica M. McDaniel**

Title: Akt Inhibition Reinforces the Antitumor Efficacy of Carboplatin and Paclitaxel (CP) in melanomas that are BRAF wild-type by modulating the Balance Between Autophagy and Apoptosis.

Presenting Author: **Vito W. Rebecca**

Title: MicroRNA-641 activates MAPK by targeting NF1 and cooperates with host gene AKT2 in human cancer

Presenting Author: **Edward J. Richards**

Title: The Effect of Gamma-secretase inhibition on Chemosensitivity in Colon Cancer Cell Lines

Presenting Author: **Cindy R. Timme**

## Oral Presenters

Title: Aggressive melanomas establish a protective niche in response to drug therapies

Presenting Author: **Inna V. Fedorenko**

Title: Active SHP2 Mutant Induces Lung Hyperproliferative Lesions and Adenocarcinoma in Transgenic Mice

Presenting Author: **Valentina Schneeberger**

## *USF Health Research Day*

**Lori Griner** competed in the USF Health Research Day. Her poster title was: *Cholesterol Alteration Used to Enhance JAK Inhibitor Therapy in Myeloproliferative Neoplasms*. **Griner LN, McGraw KL**, Johnson JO, List AF, Reuther GW.

## *USF ResearchOne Graduate Student Research Symposium*

**Valentina Schneeberger** presented a poster at the upcoming USF ResearchOne Graduate Student Research Symposium on April 5. She presented the poster "*Active SHP2 Mutant Induces Lung Hyperproliferative Lesions and Adenoma in Transgenic Mice*". Valentina Schneeberger, Noreen Luetkeke, Alex S. Lopez, Liwei Chen, Derek Radisky, Domenico Coppola, Jie Wu.

## *Ponce Rotation*

**Brienne Engel**, Cress lab, will do a 4-week summer rotation at Ponce as part of the U56 program. She will be working in the laboratory of Dr. Pedro Santiago at the Ponce School of Medicine.