<table>
<thead>
<tr>
<th>Division Data Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research and Training Details</strong></td>
</tr>
<tr>
<td>Number of Faculty</td>
</tr>
<tr>
<td>Number of Joint Appointment Faculty</td>
</tr>
<tr>
<td>Number of Research Fellows</td>
</tr>
<tr>
<td>Number of Research Students</td>
</tr>
<tr>
<td>Number of Support Personnel</td>
</tr>
<tr>
<td>Direct Annual Grant Support</td>
</tr>
<tr>
<td>Direct Annual Industry Support</td>
</tr>
<tr>
<td>Peer Reviewed Publications</td>
</tr>
</tbody>
</table>

**Clinical Activities and Training**

Number of Clinical Fellows 1

---

**Significant Publications**


The mechanisms underlying the development of childhood asthma have been difficult to identify, as it is a clinically heterogeneous disorder. Dr. Wills-Karp and her colleagues have shown that severe forms of the disease may be driven by the activation of a novel Th17 cytokine pathway by the innate immune mediator, complement factor 3. These studies may inform the development of therapies designed specifically to treat the currently intractable forms of asthma.


Although airway constriction is the hallmark of asthma, the mechanisms driving this constriction have not been well understood. Dr. Finkelman and his colleagues demonstrated that IL-4Rs on airway smooth muscle are sufficient to induce the airway constriction associated with asthma. This paper opens the door for the development of smooth muscle-directed asthma therapies.


Cytopenias of unknown origin are commonly observed in patients during severe inflammation. Dr. Jordan and his colleagues have shown that high levels of the cytokine, IFN-g, which are produced during inflammation, drives the anemia through altering the ability of macrophages to endocytose red blood cells.
These findings define a unique pathological process underlying consumptive anemia that has broad clinical significance. The development of strategies to target IFN-g may have profound life-saving potential in patients with inflammation-induced anemias.


An imbalance in T cell responses is associated with both impaired responses to infections and on the other hand the development of several immune diseases such as childhood arthritis, Crohn's disease, and asthma. Dr. Hildeman and his colleagues have shown that the regulation of the balance of harmful to beneficial T cells responses is influenced by a molecule referred to as Bim. Notably the T cell subset which dampens the function of other T cells, referred to as Tregulatory cells, have suppressed levels of Bim, leading to the survival of these immunosuppressive Tregs. This knowledge can be exploited for the development of therapies to either enhance immunity or suppress it in inflammatory diseases.


K-RAS mutations are found in approximately 30% of lung cancers. Kruppel-like Factor 5 (KLF5) has been shown to mediate cellular transformation signaling events downstream of oncogenic RAS in other cancers. Dr. Grimes and his colleagues explored the role KLF5 in lung tumorigenesis. They report that while KLF5 does not appear to be important in lung tumorigenesis, it plays an important role in suppressing responsiveness to the chemotherapeutic agent, doxorubicin used clinically to treat lung cancer. This finding may lead to the development of therapies designed to enhance the efficacy of currently used chemotherapies and ultimately to patient survival.

**Division Highlights**

**Fred Finkelman, MD**

Dr. Finkelman and his colleagues identified new markers that can be used to distinguish whether anaphylaxis is mediated by IgE or IgG antibodies. Identification of the underlying antibody response may lead to the development of more specific therapies to prevent fatal anaphylactic responses in humans (Khodoun MV et al. Identification of markers that distinguish IgE- from IgG-mediated anaphylaxis. *PNAS*. 108(30):12413-8. 2011).

**Jochen Mattner, MD**

Dr. Mattner's lab identified Cd101 as the first genetic susceptibility gene in a model of primary biliary cirrhosis. They showed that the suppression of CD101 expression, a negative costimulatory molecule, on antigen presenting cells is associated with the development of overzealous T cell responses and severe liver autoimmunity (Mohammed JP et al. Identification of Cd101 as a susceptibility gene for *Novosphingobium aromaticivorans*-induced liver autoimmunity. *J. Immunol*. 187(1):337-49. 2011). This finding may provide a novel therapeutic target for the treatment of primary biliary cirrhosis.

**David Hildeman, PhD**

Dr. Hildeman has shown an important role for two molecules that regulate apoptosis, Bim and Bcl2, in regulatory T cell homeostasis in aged hosts (*J. Immunol.*, 2011) and in controlling CD8+ effector T cell responses (*J. Immunol.*, 2011), respectively. These findings may have major implications for developing therapies to restore T cell function in aged hosts and for controlling exaggerated T cell responses in a variety
of autoimmune diseases.

Others

Several members of our divisional faculty received honors and new appointments this year. Dr. Michael Jordan was promoted to Associate Professor with tenure. Dr. Wills-Karp was appointed Chair of the NIH AITRC study section and to the AAI Clinical Immunology Committee. Dr. Grimes was appointed to the Faculty of 1000, the ASH Ad-Hoc Scientific Committee on Bone Marrow Failure Leukemia and Lymphoma Society CDP review, and as Associate Editor for PLoS Genetics. Dr. Hildeman was appointed Director of the Immunobiology Graduate Program and as a permanent member of the NIH Cellular and Molecular Immunology-B (CMI-B) study section. Dr. Jordan was re-elected for a second term as chair of the scientific committee for the Histiocyte society. Dr. Finkelman was elected as Treasurer of FASEB.

Division Collaboration

**Pediatric Ophthalmology** » Marsha Wills-Karp, PhD; Ian Lewkowich, PhD; Richard Lang, PhD

Dr. Wills-Karp and Dr. Lewkowich collaborated with Dr. Richard Lang on a study that demonstrated that myeloid cells regulate angiogenesis through a non-canonical Wnt-Flt1 pathway (Stefater JA 3rd et al. *Regulation of angiogenesis by a non-canonical Wnt-Flt1 pathway in myeloid cells*. *Nature*. 474(7352):511-5. May 29, 2011).

**Asthma Research** » Marsha Wills-Karp, PhD; Gurjit Hershey, MD, PhD

Dr. Wills-Karp collaborated with Dr. Gurjit Hershey on a study demonstrating that Serpinb3 plays an important role in mucus production in a mouse model of asthma (Sivaprasad U et al. *A nonredundant role for mouse Serpinb3a in the induction of mucus production in asthma*. 127(1):254-261.e6. *JACI*. Jan, 2011).

**Allergy and Immunology** » Fred Finkelman, MD; Simon Hogan, PhD


**Critical Care Medicine** » Ian Lewkowich, PhD; Kristen Page, PhD


**Molecular Immunology** » Ian Lewkowich, PhD; Claire Chougnet, PhD


**Exp. Hem. & Cancer Bio. - Cell Signaling** » H. Leighton Grimes, PhD; Yi Zheng, PhD

Dr. Grimes collaborated with Dr. Zheng to show that IL-7 receptor and T-cell receptor signaling are coordinated by cell-division cycle 42 to maintain T-cell homeostasis (Guo F et al. *Coordination of IL-7 receptor and T-cell receptor signaling by cell-division cycle 42 in T-cell homeostasis*. *Proc Natl Acad Sci U S A*. Oct 26, 2010).
Dr. Jordan collaborated with Dr. Stella Davies in a study that alternate-day micafungin antifungal prophylaxis may provide an attractive alternative to anti-fungal prophylaxis in pediatric patients undergoing hematopoietic stem cell transplantation (Mehta PA et al. *Alternate-day micafungin antifungal prophylaxis in pediatric patients undergoing hematopoietic stem cell transplantation: a pharmacokinetic study*. *Biol Blood Marrow Transplant*. Oct, 2010).

Dr. Jordan working with a team here at CCHMC including Drs. Marsh, Davies, Bleesing and Filipovich showed that reduced-intensity conditioning significantly improves survival of patients with hemophagocytic lymphohistiocytosis undergoing allogeneic hematopoietic cell transplantation (Marsh RA et al. *Reduced-intensity conditioning significantly improves survival of patients with hemophagocytic lymphohistiocytosis undergoing allogeneic hematopoietic cell transplantation*. *Blood*. Dec, 2010).

In a collaborative study with Dr. Zheng, Drs. Mattner, Grimes, Hildeman and Wills-Karp showed that the absence of cdc42, a member of the Rho GTPase family, was important for the development of more severe liver pathology upon infection (Guo F et al. *Distinct roles of Cdc42 in thymopoiesis and effector and memory T cell differentiation*. *PLoSOne*. Mar 24, 2011).

The Cytokine and Mediator Core run by Dr. Wills-Karp continues to provide cytokine measurements to a wide range of investigators here at CCHMC/UC and around the country. The Digestive Health Center has incorporated the CMC Core into the Core services it offers its members.

**Faculty Members**

**Marsha Wills-Karp, PhD**, Professor

*Division Director*

*Associate Director of Immunobiology Graduate Program*

*Rieveschl Professor of Pediatrics*

*Research Interests* Immunopathogenesis of asthma

**Fred Finkelman, MD**, Professor

*McDonald Professor, UC Department of Internal Medicine, Division of Rheumatology and Immunology*

*Research Interests* Allergy/Asthma, Intestinal Parasites

**H. Leighton Grimes, PhD**, Associate Professor

*Director Cancer Pathology Program*

*Research Interests* Leukemia/Lymphoma

**De’Broski Herbert, PhD**, Assistant Professor

*Research Interests* Inflammatory Bowel Diseases/Intestinal Parasitic Infections

**David A. Hildeman, PhD**, Associate Professor

*Director, Immunobiology Graduate Program*

*Research Interests* T-cell Biology

**Michael B. Jordan, MD**, Associate Professor

*Research Interests* Childhood Immunodeficiency Diseases

**Ian Lewkowich, PhD**, Instructor
**Research Interests** The role of PD-1 family members in differential control of immune responses/Mechanisms of severe allergic asthma

**Jochen Mattner, MD**, Assistant Professor

**Research Interests** Autoimmune Liver Diseases

---

**Joint Appointment Faculty Members**

**Eman Al-Khadra, MD, MPH**, Assistant Professor

Critical Care Medicine

**Kristen Page, PhD**, Associate Professor

Critical Care Medicine

---

**Trainees**

- Pulak Tripathi, PhD, PGY-8, Markey Cancer Center, University of Kentucky, Lexington, Kentucky
- Chinavenmeni Velu, PhD, PGY-6, Texas Tech University Medical Center, Amarillo, Texas
- Erin Zoller, BS, GS-6, University of Virginia, Charlottesville, Virginia
- Andre Olsson, PhD, PGY-5, Lund University, Lund, Sweden
- Reena Rani, PhD, PGY-5, Chhatrapati Shahi Maharaj University, Kanpur, India
- James Phelan, BS, GS-5, The Ohio State University, Columbus, Ohio
- Stephane Lajoie, PhD, PGY-4, McGill University, Montreal, Quebec, Canada
- Aditya Chaubey, PhD, PGY-4, Clemson University, Clemson, South Carolina
- Theodore Johnson, MD, PGY-4, Medical College of Georgia, Augusta, Georgia
- Andrew Lindsley, MD/PhD, PGY-4, Indiana University, Indianapolis, Indiana
- Sema Kurtulus, BS, GS-4, Sabanci University, Istanbul, Turkey
- Yusuke Suzuki, PhD, PGY-3, Keio University, Tokyo, Japan
- Supriya Pokkali, PhD, PGY-3, Tuberculosis Research Center, Chennai, India
- Mark Webb, BS, GS-3, Brigham Young University, Provo, Utah
- Catherine Buckingham, BS, GS-3, Asbury College, Wilmore, Kentucky
- Stacey Burgess, BS, GS-3, Marietta College, Marietta, Ohio
- Jana Raynor, BS, GS-3, North Georgia College and State University, Dahlonega, Georgia
- Sara Stoffers, BS, GS-3, University Central Florida, Orlando, Florida
- Sara Meyer, PhD, PGY-2, University of Cincinnati, Cincinnati, Ohio
- Naina Gour, BS, GS-2, University of Delhi, Delhi, India

---

**Significant Accomplishments**

**Insights into the Pathogenesis of Severe Asthma**

The Division of Immunobiology has made significant strides toward its mission to elucidate the underlying mechanisms of immune-related diseases in children. These insights bring us closer to development of novel therapies for the treatment of childhood diseases. In particular, asthma is the leading cause of hospitalization in children. Although existing therapies effectively control mild forms of asthma, severe disease is not controlled by currently available therapies. Marsha Wills-Karp, PhD, and colleagues have identified a novel pathway by which severe asthma may develop. Specifically, they showed that overproduction of an innate immune mediator, complement factor C3, leads to aberrant Th17 cell responses, which induce severe
asthma. This recognition may lead to the development of novel therapies for difficult-to-treat asthma (Lajoie, *Nat. Immunol.*, 2010).

**Mechanisms of Anemia in Children**

Unexplained anemia and other low-blood counts are often found in patients who develop sudden and severe inflammation. Patients with these conditions, such as sepsis, can also look quite similar to children with a unique inborn immune disorder called hemophagocytic lymphohistiocytosis (HLH). Michael B. Jordan, MD, and his colleagues have found that a particular inflammatory molecule, interferon gamma (IFN-γ), which is found in excess in children with HLH, is a critical driver of the acute anemia observed during diverse microbial infections via a unique mechanism called hemophagocytosis (Zoller, *JEM*, 2011). In a related study, Jordan opened and expanded a multicenter clinical trial, called “Hybrid Immunotherapy for Hemophagocytic Lymphohistiocytosis” (HIT-HLH), which tests the idea that a unique combination of therapies that arrest damaging immune responses in this disorder may improve current treatments. As significant numbers of HLH patients die during the initial phases of therapy, this approach should improve survival of children with HLH.

**Potential Novel Treatment for Fatal Food Allergies**

Fatal anaphylactic responses have been associated with ingestion of certain foods such as peanuts in allergic individuals. Fred Finkelman, MD, and his colleagues have recently demonstrated that the production of IgG antibodies, rather than IgE antibodies, to food allergens is protective and that delivery of IgG antibodies systemically can suppress the induction of shock by food allergens (*JACI*, 2011). Moreover, they have identified new markers that can be used to distinguish whether an individual develops a deleterious IgE or protective IgG antibody response. Identification of the underlying antibody response may lead to the development of more specific therapies to prevent fatal anaphylactic responses in children (Khodoun et al., *PNAS*, 2011).

**Division Publications**

144.


42. Zhang X, Schmudde I, Laumonnier Y, Pandey MK, Clark JR, Konig P, Gerard NP, Gerard C, Wills-Karp M,


Grants, Contracts, and Industry Agreements

<table>
<thead>
<tr>
<th>Grant and Contract Awards</th>
<th>Annual Direct / Project Period Direct</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINKELMAN, F</strong></td>
<td></td>
</tr>
<tr>
<td>Direct IL-4 and IL-13 Effects on Pulmonary Smooth Muscle in Allergic Airway Disease</td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td>Epigenetic Manipulation of Leukemia</td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td>Building New Treatment for Leukemia using Nanotechnology</td>
<td>Cancer Free Kids</td>
</tr>
<tr>
<td>Gfi-1 and Osteoblast Suppression in Multiple Myeloma</td>
<td>National Institutes of Health(University of Pittsburgh)</td>
</tr>
<tr>
<td>A New Target in T Cell Acute Lymphoblastic Leukemia</td>
<td>Cancer Free Kids</td>
</tr>
<tr>
<td><strong>GRIMES, L</strong></td>
<td></td>
</tr>
<tr>
<td><strong>HERBERT, D</strong></td>
<td></td>
</tr>
<tr>
<td>Alternative Macrophage Activation Limits Immunopathology</td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td>Regulation of Antibody-Mediated Disorders</td>
<td>National Institutes of Health(University of Cincinnati)</td>
</tr>
<tr>
<td>CD8+ T Cell Homeostasis by IL-4</td>
<td>National Institutes of Health(University of Cincinnati)</td>
</tr>
<tr>
<td><strong>HILDEMAN, D</strong></td>
<td></td>
</tr>
<tr>
<td>Regulation of Apoptosis in Activated Primary T Cells</td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td>Regulation of Apoptosis in Activated Primary T Cells</td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td>Transforming Growth Factor Beta in T-Cell Homeostasis and Tolerance</td>
<td>National Institutes of Health(Arizona Board of Regents)</td>
</tr>
</tbody>
</table>
JORDAN, M
An Animal Model of Hemophagocytic Lymphohistiocytosis
National Institutes of Health
R01 HL 091769 08/10/07-06/30/12 $250,000

LEWKOWICH, I
Synergistic Roles of IL-17 in Asthma Susceptibility
Parker B. Francis Fellowship Program
07/01/10-06/30/13 $52,000

MATTNER, J
Primary Biliary Cirrhosis: Molecular Genetics and Microbe
National Institutes of Health
R01 DK 084054 06/01/09-05/31/14 $171,518.00

WILLS-KARP, M
Mechanism of PM Induced Dendritic Cell Activation
National Institutes of Health(The Johns Hopkins University) P50 ES 015903 09/29/07-06/30/12 $214,789
Epithelial Regulation of Th2 Immune Responses in the Lung
National Institutes of Health
R01 AI 083315 08/20/09-07/31/14 $247,500
MoFlo XDP Cell Sorter
National Institutes of Health S10 RR 031653 02/15/11-02/14/12 $462,394
Epithelial Genes in Allergic Inflammation - Project 3
National Institute of Health U19 AI 070235 09/15/06-08/31/11 $188,202.00
Digestive Health Center: Bench to Bedside in Research in Pediatrics Digestive Disease
National Institutes of Health
P30 DK 078392 06/01/10-05/31/12 $38,792.00

Current Year Direct $2,653,471

Industry Contracts

JORDAN, M
Therapure BioPharma, Inc $30,800

WILLS-KARP, M
Allertein Therapeutics $47,355

Current Year Direct Receipts $99,355

Total $2,752,826

Immunobiology Graduate Program

The Immunobiology Graduate Program is an inter-departmental program within the University of Cincinnati that offers PhD and MS degrees in Immunology. The Division of Immunobiology serves as the administrative home of the Graduate Program. The program is governed by Director Dr. David Hildeman, Associate Director Dr. Marsha Wills-Karp and a Steering Committee composed of members of several departments/divisions at CCHMC and UC. Dr. Jonathan Katz is the coordinator of the Foundations in Immunology Courses.

The Immunobiology Program provides broadly based instruction in immunology, along with rigorous research training that
emphasizes modern approaches to understanding the function of the immune system in health and disease. To this end, the program currently has 31 faculty members from 4 departments and 12 divisions within the College of Medicine and CCHMC. We currently have a total of 34 outstanding students (31 PhD students and 3 MS students) from around the country and abroad. This academic year we celebrated the graduation of 2 PhD students and 2 MS students. Our students have distinguished themselves already by receiving several travel and research awards (AAAI, Yates Scholarship Award, Ryan Scholarship Award and an NIH F30 Award).

The Program is supported financially by a variety of sources. This year, tuition support was provided through University Graduate Scholarships awarded by the University of Cincinnati. Student stipends were supported through a variety of sources including funds from the University of Cincinnati (UGA), NIH training grants, external grants to their advisors, and funds from Cincinnati Children's Research Foundation. The program anticipates sustained growth over the next few years with a target class size of 10 new students per year.

### Immunobiology Graduate Program Students, 2010-2011

<table>
<thead>
<tr>
<th>Student</th>
<th>Faculty Mentor</th>
<th>Admission Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jessica Allen</td>
<td>Christopher Karp</td>
<td>2004</td>
</tr>
<tr>
<td>Erin Zoller</td>
<td>Michael Jordan</td>
<td>2005</td>
</tr>
<tr>
<td>Katherine Groschwitz</td>
<td>Simon Hogan</td>
<td>2005</td>
</tr>
<tr>
<td>James Phelan</td>
<td>H. Leighton Grimes</td>
<td>2006</td>
</tr>
<tr>
<td>Jill Fritz</td>
<td>Timothy Weaver</td>
<td>2006</td>
</tr>
<tr>
<td>Joni Prasad</td>
<td>Jay Degen</td>
<td>2006</td>
</tr>
<tr>
<td>Amanda Beichler Waddell</td>
<td>Simon Hogan</td>
<td>2007</td>
</tr>
<tr>
<td>Cortez McBerry</td>
<td>Julio Aliberti</td>
<td>2007</td>
</tr>
<tr>
<td>Rachael Mintz</td>
<td>Gurjit Hershey</td>
<td>2007</td>
</tr>
<tr>
<td>Sema Kurtulus</td>
<td>David Hildeman</td>
<td>2007</td>
</tr>
<tr>
<td>Ibrahim Aksoyilar</td>
<td>Kasper Hoebe</td>
<td>2007</td>
</tr>
<tr>
<td>Stacey Burgess</td>
<td>Marsha Wills-Karp</td>
<td>2008</td>
</tr>
<tr>
<td>Samuel Vaughn</td>
<td>Thomas Griffin</td>
<td>2008</td>
</tr>
<tr>
<td>Isaac Harley</td>
<td>Christopher Karp</td>
<td>2008</td>
</tr>
<tr>
<td>Catherine Buckingham</td>
<td>Marsha Wills-Karp</td>
<td>2008</td>
</tr>
<tr>
<td>Jana Raynor</td>
<td>David Hildeman</td>
<td>2008</td>
</tr>
<tr>
<td>Sara Stoffers</td>
<td>H.Leighton Grimes</td>
<td>2008</td>
</tr>
<tr>
<td>Bo Liu</td>
<td>Yui-Hsi Wang</td>
<td>2008</td>
</tr>
<tr>
<td>Mark Webb</td>
<td>Marsha Wills-Karp</td>
<td>2008</td>
</tr>
<tr>
<td>Nick Boespflug</td>
<td>Christopher Karp</td>
<td>2009</td>
</tr>
</tbody>
</table>
Jordan Downey  Christopher Karp  2009
Naina Gour  Marsha Wills-Karp  2009
Jonathan McNally  Edith Janssen  2009
Maria Fields  Claire Chougnet  2009
Harini Raghu  Matthew Flick  2009
Akash Verma  George Deepe  2009
Yunguan Wang  Fred Finkelman  2009
Olivia Ballard  Ardythe Morrow  2010
Kyle Bednar  William Ridgway  2010
Roger Fecher  George Deepe  2010
Wenting Huang  William Ridgway  2010
Jennifer Leddon  Timothy Cripe  2010
Ke Liu  John Harley  2010
Hesham Shehata  Claire Chougnet  2010

Student Honors

Stacey Burgess  2011 Center for Environmental Genetics NIS award, University of Cincinnati

Naina Gour  2011 UC-GSGA-Conference Travel Award for attending The American Academy of Allergy, Asthma and Immunology Conference


Isaac T. W. Harley  2011 – 2013 Albert J. Ryan Fellowship

Sema Kurtulus  2011 – 2012 UC Distinguished Dissertation Completion Fellowship

Jennifer Leddon  2011-2012 Cancer Free Kids grant

Cortez C. McBerry  2008 - 2012 Albert C. Yates Fellowship

Rachael A. Mintz-Cole  2010 Ruth L. Kirchstein National Research Service Award Individual Fellowship; 2010 2nd Place: University of Cincinnati Graduate Student Poster Forum; 2011 Chrysallis Travel Award Recipient (AAAAI)

Maria E. Moreno-Fernandez  2010 John Wallace Diversity Scholarship, Autumn Immunology Congress; 2010 HIV pathogenesis Scholarship National Institute Health, Office of AIDS Research, Keystone Symposia

James D. Phelan  2010 External Fellowship through The Ohio State Comprehensive Cancer Center; 2010 Center for Immunological Research Retreat, 1st Place Poster Award; 2010 American Society of Hematology Travel Award; 2011 Pelotonia Graduate Fellowship

Amanda B. Waddell  2009 - 2011 American Gastroenterological Association Foundation Graduate Student Award
Student Publications


Student Presentations

ORAL PRESENTATIONS

Catherine M. Buckingham (2008) Buckingham CM. IL-17A exacerbates airway hyperresponsiveness by suppressing T regulatory cell-mediated protection. Autumn Immunology Conference, Chicago, IL 2010


Fritz J. The UPR chaperone ERdj4 impacts early B cell development. Pulmonary Biology Division Meeting, Cincinnati Children's Hospital Research Foundation, Cincinnati, OH 2011

Naina Gour (2009) Gour N, Wills-Karp M. Carbohydrates in Dust Mite Allergen Promote IL-10 Production by Dendritic Cells. Autumn Immunology Conference, Chicago, IL 2010


Rachael A. Mintz-Cole (2007) Mintz-Cole R, Gibson A, Reponen T, Hershey GK. Induction of CD80 and CD86 on APCs after exposure to Aspergillus versicolor or Cladosporium cladosporioides is correlated with distinct T cell responses. Autumn Immunology Conference, Chicago, IL 2010


Moreno-Fernandez ME, Rueda CM, Rusie LK, Chougnet CA. Regulatory T cells control HIV replication in activated T cells
through contact-dependent and independent pathways. Autumn Immunology Conference, Chicago, IL 2010

Moreno-Fernandez ME, Rueda CM, Rusie LK, Chougnet CA. Regulatory T cells control HIV replication in activated T cells. Trainees’ Research Grand Round, University of Cincinnati, Cincinnati, OH 2010

James D. Phelan (2006) Phelan J. Lymphoid malignancies critically require Growth factor independent 1 (Gfi1) for tumor initiation and maintenance. Experimental Hematology Floor Meeting, Division of Experimental Hematology, Cincinnati Children’s Hospital Research Foundation, Cincinnati, OH 2011

Phelan J. Lymphoid malignancies critically require Growth factor independent 1 (Gfi1) for tumor initiation and maintenance. Cancer Therapeutics Data Club, University of Cincinnati College of Medicine, Department of Cancer & Cell Biology, Cincinnati, OH 2010

Phelan J. Lymphoid malignancies critically require Growth factor independent 1 (Gfi1) for tumor initiation and maintenance. Student Post-Doc Forum, Division of Immunobiology, Cincinnati Children’s Hospital Research Foundation, Cincinnati, OH 2010

Phelan J. Notch-induced lymphoid malignancies critically require growth factor independent 1 (Gfi1) for tumor initiation and maintenance. Notch Data Club, Intra-divisional conference, Cincinnati Children’s Hospital Research Foundation, Cincinnati, OH 2010


POSTER PRESENTATIONS


Nicholas D. Boespflug (2009) Boespflug ND, Karp C. Adherence-induced ATF3 expression: a mechanism underlying differences in macrophage subset responsiveness? PSTP and Immunobiology Program Poster Sessions, University of Cincinnati, Cincinnati, OH 2010


Burgess S, Wills-Karp M. Segmented Filamentous Bacteria In The Exacerbation of Experimental Murine Asthma. American Academy of Allergy, Asthma and Immunology Annual Conference, San Francisco, CA 2011


Giebel JD, Fritz J, Akinbi HT, Hanna PC. The Role of Host Lysozyme in Bacillus anthracis Virulence. 111th General Meeting American Society for Microbiology, New Orleans, LA 2011

**Naina Gour (2009)** Gour N, Wills-Karp M. Carbohydrates in Dust Mite Allergen Promote IL-10 Production by Dendritic Cells. Autumn Immunology Conference, Chicago, IL 2010

Gour N, Wills-Karp M. Carbohydrate Moieties Contained in Dust Mite Allergen Promote IL-10 Production by Dendritic Cells. American Academy of Allergy, Asthma and Immunology Annual Meeting, San Francisco, CA 2011


**Sema Kurtulus (2007)** Kurtulus S. Additional loss of Bim rescues viral-specific effector and memory T cells, but not endogenous memory T cells or NK cells in IL-15-deficient mice. The American Association of Immunologists Annual Meeting, San Francisco, CA 2011

Kurtulus S. Bcl-2 allows Effector and memory CD8+ T cells to tolerate higher expression of Bim’ poster presentation. The American Association of Immunologists Annual Meeting, San Francisco, CA 2011

**Rachael A. Mintz-Cole (2007)** Mintz-Cole R, Gibson A, Reponen T, Hershey GK. Induction of CD80 and CD86 on APCs after exposure to *Aspergillus versicolor* or *Cladosporium cladosporioides* is correlated with distinct T cell responses. Autumn Immunology Conference, Chicago, IL 2010


Phelan JD, Khandanpour C, Horman SR, Gaudreau M, Zhu J, Paul WE, Dührsxn U, Mööoy T, Grimes HL. Lymphoid malignancies critically require Growth factor independent 1 (Gfi1) for tumor initiation and maintenance. Center for Immunological Research Annual Retreat, Loveland, OH 2010

**Joni Prasad (2006)** Prasad J. Host fibrinogen and the *S. aureus*-encoded procoagulant vWbp are context-dependent determinants of bacterial virulence. American Society of Hematology Conference, Orlando, FL 2010

Prasad J. Host hemostatic factors and the *S. aureus*-encoded procoagulant vWbp are determinants of bacterial virulence. FASEB Proteases in Hemostasis and Vascular Biology Conference, Carefree, AZ 2011


**Amanda B. Waddell (2007)** Waddell A. Colonic eosinophilic inflammation and histopathology in experimental colitis is mediated by Ly6C-CR2+ inflammatory monocyte-derived CCL11 via a STAT-6-independent mechanism. Center for Immunological Research Annual Retreat, Loveland, OH 2010

Waddell A. Colonic eosinophilic inflammation in experimental colitis is mediated by Ly6C^hi CR2^+ inflammatory monocyte-derived CCL11. Graduate Student Research Forum, University of Cincinnati College of Medicine, Cincinnati, OH 2010
Waddell A. Colonic eosinophilic inflammation in experimental colitis is mediated by Ly6Chhi CCR2+ inflammatory monocyte-derived CCL11. Digestive Health Center Retreat, Cincinnati Children’s Hospital Research Foundation, Cincinnati, OH 2011


Webb M, Dienger K, Wills-Karp M. Allergen-induced lysosomal CCL20 release from BECs requires ion transporter-mediated Cl⁻ export. American Academy of Allergy, Asthma and Immunology Annual Meeting, San Francisco, CA 2011