
**Division Data Summary**

<table>
<thead>
<tr>
<th>Research and Training Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Faculty</td>
<td>12</td>
</tr>
<tr>
<td>Number of Joint Appointment Faculty</td>
<td>1</td>
</tr>
<tr>
<td>Number of Research Fellows</td>
<td>5</td>
</tr>
<tr>
<td>Number of Research Students</td>
<td>2</td>
</tr>
<tr>
<td>Number of Support Personnel</td>
<td>5</td>
</tr>
<tr>
<td>Direct Annual Grant Support</td>
<td>$1,140,266</td>
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<tr>
<td>Peer Reviewed Publications</td>
<td>11</td>
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<table>
<thead>
<tr>
<th>Clinical Activities and Training</th>
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<tbody>
<tr>
<td>Number of Clinical Staff</td>
<td>8</td>
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<tr>
<td>Number of Clinical Students</td>
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<td>Inpatient Encounters</td>
<td>635</td>
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<tr>
<td>Outpatient Encounters</td>
<td>20,963</td>
</tr>
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**Faculty Members**

Constance E. West, MD,  Associate Professor ; Division Director
James J. Augsburger, MD, FACS,  Professor ; Chairperson, Department of Ophthalmology
Marie I. Bodack, OD, FAAO, FCVO,  Instructor Clinical
Dean J. Bonsall, MD, MS, FACS,  Assistant Professor
Tiffany Cook, PhD,  Assistant Professor
Adam H. Kaufman, MD, FACS,  Associate Professor
Richard A. Lang, PhD,  Professor ; Emma & Irving Goldman Scholar and Head of the Visual Systems Group
Sarah Lopper, OD,  Instructor Clinical
Joint Appointment Faculty Members

Nadean Brown, PhD,  Professor

Significant Accomplishments in FY08

Richard Lang, Ph.D., Professor, Emma and Irving Goldman Scholar Chair

Dr. Richard Lang has been a Professor of Ophthalmology and Developmental Biology at Cincinnati Children’s since 2001. Dr. Lang leads the Visual System Group and is working to expand the group into a world-class research initiative. Dr. Lang manages a research lab with a major emphasis on ocular development.

His research explores fetal eye development and his current projects address the genetic control of lens and blood vessel development in the mouse. Dr. Lang recipient of both public and private funding and as of the end of fiscal year 2007, the National Institutes of Health have funded three projects in Dr. Lang's laboratory. Dr. Lang was awarded the Lew R. Wasserman Merit Award by the Research to Prevent Blindness Foundation for his work on programmed vessel regression. While Dr. Lang studies the development of the eye, these projects are divided into two specific areas of research. One group investigates the development of the lens. More specifically, they are interested in the role of cadherins in lens morphogenesis and are also working on a cell-based therapy for cataracts. The other group investigates the role of vessel development in the eye, and specifically the role of the visual system and to be able to apply that knowledge in the clinical setting.

Tiffany Cook, Ph.D.

Dr. Tiffany Cook's laboratory is interested in understanding the molecular basis of eye development, and how these processes are disrupted in disease states. Using the fruit fly Drosophila melanogaster as a model, she combines cellular, molecular, biochemical and genetic approaches to dissect the events underlying both retina and lens development. Dr. Cook's specific areas of research include color photoreceptor subtype specification in the Drosophila retina, cell-specific regulation of opsin gene expression, neural vs. non-neural cell fate decisions by the neural stem cell factor, Prospero, and mechanisms of cell-specific transcriptional activation and repression. In fiscal year 2008, two private career development awards and a R01 award from the National Eye Institute at the National Institutes of Health supported Dr. Cook's research.

Division Collaboration

Collaboration with Ophthalmology; Rheumatology

Collaborating Faculty: Sarah Lopper, OD; Rheumatology

Screening for Uveitis in children with Juvenile Idiopathic Arthritis (JIA)

Mentions in Consumer Media

Division Publications

5. Krishnamoorthy MK, Park J, Augsburger JJ, Banerjee RK. Effect of retinal permeability, diffusivity, and aqueous...


**Grants, Contracts, and Industry Agreements**

**Grant and Contract Awards**  
**Annual Direct / Project Period Direct**

| Bonsall, D | Pediatric Eye Disease Group  
National Institutes of Health (Jaeb Center for Health Research)  
U10 EY 011751 | 01/01/07 - 09/30/08 | $30,000 / $30,000 |
| --- | --- | --- | --- |
| Cook, T | Research to Prevent Blindness Career Development Award  
Research to Prevent Blindness (University of Cincinnati) | 01/01/05 - 12/31/08 | $50,000 / $200,000 |
| Pros/Prox1 and Lens Development  
National Institutes of Health | R01 EY 017907 | 09/15/07 - 07/31/12 | $225,000 / $1,125,000 |
| Lang, R | Research to Prevent Blindness Lew R. Wasserman Award  
Research to Prevent Blindness | 07/01/07 - 06/30/08 | $60,000 / $60,000 |
| Developing Vision: WNTS In Programmed Vessel Regression  
National Institutes of Health | R01 EY 015766 | 09/23/04 - 08/31/09 | $242,758 / $1,250,000 |
| Developing Vision: Cadherin Function in Lens Morphogenesis  
National Institutes of Health | R01 EY 016241 | 09/09/05 - 08/31/10 | $242,758 / $1,250,000 |
| RhoGTPases in Early Eye Development  
National Institutes of Health | R01 EY 017848 | 04/06/07 - 03/31/12 | $196,000 / $1,075,000 |
| Macrophages and Tumor Angiogenesis  
National Institutes of Health (Albert Einstein College of Medicine) | R01 CA 131270 | 12/01/07 - 11/30/12 | $93,750 / $468,750 |

| **Current Year Direct** | $1,140,266 |
| **Total** | $1,140,266 |