State of the Department

David A. Schwartz, MD
Departmental Vision

*Improve human health by fostering the development of outstanding interdisciplinary programs in patient care, education, and research that serve the community, region, and nation*
Departmental Vision

*Improve human health by fostering the development of outstanding interdisciplinary programs in patient care, education, and research that serve the community, region, and nation*

Driving Principles:

• Outstanding patient care
• Balance growth of competing priorities
• Foster interdisciplinary programs
• Build strong partnerships
• Enhance diversity

Transparency and Accountability
Departmental Vision

Improve human health by fostering the development of outstanding interdisciplinary programs in patient care, education, and research that serve the community, region, and nation.

Driving Principles:
• Outstanding patient care
• Balance growth of competing priorities
• Foster interdisciplinary programs
• Build strong partnerships
• Enhance diversity

Transparency and Accountability

Strategy and Tactics

Career Advancement

Program Development
Department of Medicine Revenue

FY14 Revenue: $187M
FY14 Margin: $5.6M
Incentives: $2.9M

State Appropriation  Clinical Revenue  Grants & Contracts  Other

FY 09  FY 10  FY 11  FY 12  FY 13  FY 14
State of the Department

• Accomplishments and Opportunities
  □ Clinical
  □ Education and Training
  □ Research

• Departmental Challenges

• Career Advancement and Program Development
Clinical Enterprise

“Our heart, soul, and sustenance”
Medicine Inpatient Volumes

<table>
<thead>
<tr>
<th>Year</th>
<th>In-Patient E&amp;M Visits (thousands)</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2009</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>FY 2010</td>
<td>68</td>
<td>-2.6%</td>
</tr>
<tr>
<td>FY 2011</td>
<td>72</td>
<td>4.4%</td>
</tr>
<tr>
<td>FY 2012</td>
<td>88</td>
<td>25.8%</td>
</tr>
<tr>
<td>FY 2013</td>
<td>98</td>
<td>10.6%</td>
</tr>
<tr>
<td>FY 2014</td>
<td>111</td>
<td>23.5%</td>
</tr>
</tbody>
</table>
Inpatient and Outpatient wRVUs

FY 07: 26.9%
FY 08: -3.8%
FY 09: 0.2%
FY 10: 4.4%
FY 11: 6.0%
FY 12: 9.7%
FY 13: 13.0%
FY 14: 13.0%

Inpatient and Outpatient wRVUs (thousands)

Inpatient
Outpatient
Clinical Revenue

Challenge: Managing Growth
- Focus on cFTEs and quality
- Enhance program development
- Reward clinicians and teams

FY07  FY08  FY09  FY10  FY11  FY12  FY13  FY14

Dollars (millions)

More Admissions
More Out-Patient Visits
More Patient Days

- Patient Income
- Clinical Contract Income
Growth of Clinical FTEs

Strong partnership with the hospital and UPI

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>MD CFTE</th>
<th>Non-MD CFTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 10</td>
<td>1%</td>
<td>99%</td>
</tr>
<tr>
<td>FY 11</td>
<td>1%</td>
<td>99%</td>
</tr>
<tr>
<td>FY 12</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>FY 13</td>
<td>10%</td>
<td>90%</td>
</tr>
<tr>
<td>FY 14</td>
<td>21%</td>
<td>79%</td>
</tr>
</tbody>
</table>

MD CFTE = Blue
Non-MD CFTE = Red
Faculty Recruitment

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 07</th>
<th>FY 08</th>
<th>FY 09</th>
<th>FY 10</th>
<th>FY 11</th>
<th>FY 12</th>
<th>FY 13</th>
<th>FY 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiology</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>8</td>
<td>7</td>
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<tr>
<td>Clinical Pharmacology</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrinology</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>1</td>
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<tr>
<td>General Internal Medicine</td>
<td>15</td>
<td>13</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>20</td>
<td>27</td>
<td>39</td>
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<tr>
<td>Gastroenterology</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>Health Care Policy Research</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Medical Oncology</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Personalized Medicine</td>
<td>6</td>
<td>3</td>
<td>11</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Renal</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rheumatology</td>
<td>2</td>
<td>2</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Division Heads

Eric Coleman, MD – HCPR
Craig Jordan, PhD - Hematology
Wells Messersmith, MD - Oncology
Eric Poeschla, MD - ID

DOM Recruit Totals
Outstanding QI Program

Unique Needs of Divisions
• Divisions functioning on electronic platform for Ongoing Prof Performance Evaluation
• Performance improvement:
  ▶ Methodological support
  ▶ Data analysis
  ▶ Support maintenance of certification

Morbidity and Mortality
• Peer review training (toolkit)
• Data collection
• Process improvement
  ▶ Infection control
  ▶ Admission and level of care
  ▶ EPIC modifications

Homer Atanacio, Heidi Wald, Raven Astrom, Lindsie Stephan
Personalized Medicine
[DOM, SOM, UPI, UCHealth, Children’s Hospital, and UCD]

Genes and Molecules
• Define risk
• Identify new treatments
• Improve drug efficacy
Comprehensive Respiratory Center

- Pulmonary, Allergy, Rheumatology, Oncology, Thoracic Surgery, and ENT
- Airway disease, advanced lung disease, lung cancer, sleep, and allergy
- Inpatient Advanced Lung Disease Service (9th Floor)
- Support recruitment of faculty and program development
Reward Clinicians Delivering Care

**Strategy:** Positive incentives drive access and productivity

**Problem:**
- Delivery of patient care was not financially profitable for Allergy, Endocrinology, Hematology, Infectious Diseases, Renal, and Rheumatology
  - Annual cost to the divisions is ≈ $500K

**Solution:**
- Partnership between UCH, UPI, and the DOM
- $800K annually to support the non-proceduralists for the care they deliver
### Non-Proceduralist Program

<table>
<thead>
<tr>
<th>Divisions</th>
<th>FY13 wRVUs and Productivity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>wRVUs</td>
<td>% Median</td>
</tr>
<tr>
<td>Allergy</td>
<td>3,242</td>
<td>73.0%</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>36,016</td>
<td>77.3%</td>
</tr>
<tr>
<td>Hematology</td>
<td>3,889</td>
<td>87.8%</td>
</tr>
<tr>
<td>ID *</td>
<td>22,551</td>
<td>69.8%</td>
</tr>
<tr>
<td>Renal</td>
<td>26,948</td>
<td>90.7%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>12,865</td>
<td>90.2%</td>
</tr>
<tr>
<td>Total or Average</td>
<td>105,511</td>
<td>81.5%</td>
</tr>
</tbody>
</table>

23.6% increase in wRVUs
Educational and Training Programs

“Our Future”

**Vision:** We will be the premier Department of Medicine for the development of diverse leaders who advance innovations in medical education and engage in discovery to improve the health of individuals and communities.
## Department of Medicine Trainees

<table>
<thead>
<tr>
<th></th>
<th>R1</th>
<th>R2</th>
<th>R3</th>
<th>Chief Residents</th>
<th>QI Chief Resident</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medicine</strong></td>
<td>70</td>
<td>50</td>
<td>50</td>
<td>5</td>
<td>1</td>
<td>176</td>
</tr>
<tr>
<td><strong>Med / Peds</strong></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

### Fellows (N=122)

- **Cardiology**: 25
- **Pulmonary**: 20
- **GI/Hepatology**: 15
- **Renal**: 10
- **Hem/Oncology**: 10
- **Endocrinology**: 5
- **Infectious Diseases**: 5
- **Allergy/Immunology**: 5
- **Rheumatology**: 5
- **Geriatrics**: 5
- **Gen. Int. Medicine**: 5

![Bar Chart of Fellows by Specialty](chart.png)
Medicine-Pediatric Residency: Inaugural Year 2014

• Recruited an outstanding Program Coordinator: Danaa Kennedy

2014 class – 280 applicants, filled 4 positions with geographically diverse trainees

• 275 applicants for the 2015 class

• Established a combined Internal Medicine-Pediatric continuity clinic

• Program Directors and Chief Residents have been pleased with the program

Joseph Kay, MD  
Co-Program Director

Daniel Reirden, MD  
Co-Program Director

Nick Breitnauer, MD, Aaron Manning, MD, Rebecca Kamins, MD, and Denise Hasson, MD
Diversity of our Trainees

Karen Shea

% Under-represented Minority Trainees

2009

2010

2011

2012

2013

2014

All Housestaff

Intern
Diversity Event for Intern Applicants

- Enhance mentorship
- Pipeline of career development
- Identify strengths of community
- Enhance diversity of faculty
Clinician-Educator Training for Fellows
[one year training program]

• Create pipeline of talented clinician educators through subspecialty fellowships
• Involves formal curricula, preceptorships, mentorship program, and QI project
• Supported by UCH (50%), department (25%), and division (25%)
• Open competition for 2-4 positions annually
Groundbreaking Research

“The Bridge Between Science and Medicine”

Vision: Support physician-scientists and PhDs to develop new knowledge that may ultimately improve human health
Departmental Research Support

<table>
<thead>
<tr>
<th>Year</th>
<th>Federal</th>
<th>Industry/Private</th>
<th>Foundations/Other Govt</th>
<th>CU Foundation &amp; Other Gifts</th>
<th>AEF/DEF</th>
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</thead>
<tbody>
<tr>
<td>FY09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY10</td>
<td></td>
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<td>2%</td>
</tr>
<tr>
<td>FY11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>FY12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>FY13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-2%</td>
</tr>
<tr>
<td>FY14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4%</td>
</tr>
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NIH Support and Ranking

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Dollars (Millions)</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY08</td>
<td>25</td>
<td>-14%</td>
</tr>
<tr>
<td>FY09</td>
<td>24</td>
<td>10%</td>
</tr>
<tr>
<td>FY10</td>
<td>21</td>
<td>0.3%</td>
</tr>
<tr>
<td>FY11</td>
<td>20</td>
<td>10%</td>
</tr>
<tr>
<td>FY12</td>
<td>23</td>
<td>-14%</td>
</tr>
<tr>
<td>FY13</td>
<td>21</td>
<td>11%</td>
</tr>
</tbody>
</table>
36 K-awards in DOM with 10 new K-awardees since FY13

Audrey Bergouignan, PhD
Endocrinology (K99)

Brendan Clark, MD
Pulmonary (K23)

Mary Demoruelle, MD
Rheumatology (K23)

Jennifer Diamond, MD
Oncology (K23)

Kristine Erlandson, MD
Infectious Diseases (K23)

Erin Giles, PhD
Endocrinology (K99)

Kerry Hildreth, MD
Geriatrics (K23)

Amy Huebschmann, MD
General Internal Medicine (K23)

MyPhuong Le, PhD
Renal Diseases (K01)

Danielle Loeb, MD
General Internal Medicine (K23)
62 R01s in DOM with 9 new R01s since FY13
VA Research Support

Submissions have increased (≈ 25/year)
Endowed Chairs held by DOM Faculty

- **33 DOM Chairs**
- **7 Non-DOM Chairs in DOM**
- **$110M total endowed funds**

Bar chart showing the number of endowed chairs in various departments:

- **Allergy**: 1 DOM Chair
- **Cardiology**: 2 DOM Chairs, 1 Non-DOM Chair
- **Endocrinology**: 1 DOM Chair
- **Gastroenterology**: 1 DOM Chair
- **Geriatrics**: 1 DOM Chair
- **GIM**: 1 DOM Chair, 1 Non-DOM Chair
- **Hematology**: 2 DOM Chairs
- **HCPR**: 1 DOM Chair
- **Infectious Disease**: 4 DOM Chairs
- **Medical Oncology**: 3 DOM Chairs
- **Pulmonary**: 3 DOM Chairs
- **Renal**: 4 DOM Chairs
- **Rheumatology**: 2 DOM Chairs

Legend:
- **DOM Chairs**
- **Non-DOM Chairs**
SOM, DOM, and Divisional Research Support
[22¢ on each extramural dollar]

- Grant: 77.9%
- CUF: 9.1%
- AEF/DEF: 6.9%
- Other: 6.1%
- Gift: 2.4%
- ICR: 1.7%
- UPI: 1.0%
- Aux: 0.9%
- Plant: 0.1%
Hospital/SOM Support of Research Mission for Clinical Departments and SOM Centers

$5M/year (FY14 and FY15)

- 33% Departmental
- 66% Individual

$3.3M

- $25K/yr "K" Awards
- $50K/yr "T" Awards

$1.7M

- Even Distribution Across Departments
- % Total Research Funding (75% division 25% dept)

≈ $1.5M for DOM
Research Retreat

**Goal:** Advance our NIH funding ranking from 21st to 15th ($17M)

### DOM Research Office
- Assist with training grants and PPGs
- Pre-review proposals and COMIRB
- Access to professional grant writer
- Diversify our funding sources

### Research Support
- Early career investigator awards
- Team science awards
- Bridge funding awards
- Support for sabbaticals (planning)

**Recruit outstanding scientists to advance NIH rankings, reputation, and impact**
- Need additional investment in the department with goal of recruiting 10-15 scientists
Departmental Challenges
Communication
Improve Communication

- Hired Dan Meyers, former medical school communications director, to guide and support this effort
- Plan to hire communications specialist to develop DOM communication and collaborate with SOM communications office
- Seeking your guidance on ways to develop our communication program
Competitive Academic Salaries

[on average all ranks by gender are at the AAMC median]
Career Advancement: Female Faculty by Academic Rank

- Instructors: 80%
- Assistant Professors: 50%
- Associate Professors: 40%
- Professors without Tenure: 20%
- Professors with Tenure: 20%
- Medical Faculty (All levels): 40%
Career Advancement

Strategy: Develop more effective mentorship, interdisciplinary programs, career development, diversity, and leadership skills among our faculty

Plan:
• Vice Chair for Faculty Advancement: focus on leadership, career development, and mentorship
• Committee to Improve the Work Environment: improve our work environment to enhance the academic success and personal growth for our faculty (survey to follow)
Career Advancement and Program Development
Colorado Refugee Wellness Center

- Core services:
  - **Medical**: Partnered with MCPN to provide medical screenings for newly arriving refugees as well as ongoing primary care
  - **Integrated Behavioral Health**: Partnered with AuMHC (also serves as our fiscal sponsor) to provide integrated behavioral health services
  - **Education**: Refugee health elective for medical students and residents; CU Law School
  - **Outreach**: Home visits and community outreach

---

**Founding Partners**

**Aurora Mental Health**

**School of Medicine, University of Colorado Anschutz Medical Campus**

**Metro Community Provider Network**
Pulmonary Vascular Disease Center

Pulmonary Arterial Hypertension
- Badesch
- Bull
- Graham
- Dempsy

Pulmonary Embolism/VTE
- Bull
- Maloney

High Altitude PH
- Honnigman
- Davis
- Roach

WHO class III PH
- Simmonian
- Lara
- Keith
- Vandivier

Hereditary Hemorrhagic Telangiectasia (HHT)
- Graham
- Durham
Hartford Center of Excellence Program

- Started in 1998 ($150k Hartford Foundation money + $150K match)
- Real matching money from DOM & SOM separated it from other COE
- Focused on developing a pipeline of MD aging-related researchers
- Concept of providing “required support”; salary and/or project
- 31 awards have accounted for >$63M in direct costs from extramural grants; developed local, regional and national leaders

<table>
<thead>
<tr>
<th>Jean Kutner</th>
<th>Eric Coleman</th>
<th>David Nowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred Masoudi</td>
<td>Susan Bray-Hall</td>
<td>Evelyn Hutt</td>
</tr>
<tr>
<td>Stacy Fischer</td>
<td>Heidi Wald</td>
<td>Cari Levy</td>
</tr>
<tr>
<td>Thomas Robinson</td>
<td>Adit Ginde</td>
<td>Kerry Hildreth</td>
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<td>Daniel Matlock</td>
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<td>David Bekelman</td>
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<tr>
<td>Marian Betz</td>
<td>Amy Heubschman</td>
<td>Elizabeth Kessler</td>
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<tr>
<td>Andrew Monte</td>
<td>Robert Burke</td>
<td>Skotti Church</td>
</tr>
<tr>
<td>James Colbert</td>
<td>Carolyn Horney</td>
<td>Mark Jeong</td>
</tr>
</tbody>
</table>
We will succeed through Your Accomplishments