FELLOWSHIP TRAINING PROGRAM IN NEONATOLOGY

The Albany Medical Center

The Albany Medical Center (AMC) is the regional academic health science center of northeastern New York. Comprising the Albany Medical Center Hospital and the Albany Medical College, AMC provides tertiary patient care and is the seat of medical education and biomedical research for a 24-county region serving nearly 2 million people. The Children's Hospital at Albany Medical Center includes a new (2013) 60-bed Neonatal Intensive Care Unit (NICU) with private rooms.

The Bernard & Millie Duker Children's Hospital at Albany Medical Center

Providing expert care in pediatric medical and surgical subspecialties. The Children's Hospital includes the NICU, which admits over 800 neonates each year, and a 61-bed inpatient unit with 2400 annual admissions; there is 17-bed PICU and a Pediatric Cardiac Surgery Program. The Emergency Department has 9,000 pediatric visits per year. The Department of Pediatrics, chaired by David Clark, M.D., has over 60 faculty members and an accredited 3-year pediatric residency program as well as 4-year combined training program in Internal Medicine and Pediatrics.

The Neonatal/Perinatal Program

The Albany Medical Center Neonatal/Perinatal Program is the regional referral center for high risk obstetrical patients and critically ill neonates for an area with 30,000 births per year. The Albany Medical Center has ~2500 births annually, with high risk patients accounting for approximately 40%. The Department of OB/GYN has a high-risk MFM service which accepts over 600 maternal transports while neonatology provides ground and air transport services for about 300 neonates each year. Neonatology staff/fellows provide prenatal consultation to most high-risk families.

All 14 Neonatology faculty members are involved in patient care activities and teaching, and have diverse clinical, research and administrative interests and responsibilities. A team approach to patient care
incorporates the expertise of the highly skilled NICU nursing staff (including Neonatal Nurse Practitioners), a NICU family care coordinator and social worker, nutritionists, residents as well as neonatal fellows and attending staff. Major emphasis is placed on educating housestaff from Pediatrics, Med/Peds, Family Practice, Anesthesiology and Emergency Medicine residency programs. The full term nursery, managed by the General Pediatrics service and area pediatricians admits about 2000 newborns each year. Neonatology provides consultative coverage to the full term nursery for acute clinical problems.

The Neonatology Fellowship Program

The Division of Neonatology at Albany Medical Center offers a fully-accredited 3-year neonatology fellowship program, with one new fellow position each year. The Program aims to provide a well-balanced education in the competencies of clinical neonatology and clinical or basic science research. Notably, the clinical service is not fellow-dependent for its function, allowing fellows substantial scheduling flexibility to meet their individual educational needs.

The first year focuses on acquisition of clinical expertise, selection of a faculty mentor, familiarization with ongoing clinical research projects, identification of a research mentor, and selection of a Scholarship Oversight Committee (SOC). Clinical outcomes research and multiple quality improvement projects are possible with a customized NICU database, as well as through participation in NY State's Regional Perinatal Data System and the Vermont-Oxford Network.

The 2nd and 3rd years include substantial protected time for research. Clinical and basic science research opportunities are provided through the faculty in neonatology and the basic sciences and clinical faculty in other disciplines. There is particular depth in Bioethics, clinical outcomes research and quality improvement. Alternative tracks are possible through the Master’s Program in Clinical Bioethics at Albany Medical Center’s Alden March Bioethics Institute (with free tuition for fellows), or the Master of Public Health program at the University at Albany School of Public Health.

Clinical Experience

The NICU at Albany Medical Center is the only State-designated Level IV Regional Perinatal Center in the area. The new 60 bed Unit has private rooms for babies and families. The NICU uses a philosophy of family-centered care, and includes technological capabilities such as high-frequency oscillation and jet ventilation, nitric oxide therapy, therapeutic hypothermia, aEEG, NIRS and point-of-care ultrasonography.

Together with the on-service attending neonatologist, fellows conduct work rounds, supervise and teach residents who rotate through the NICU. Fellows' responsibilities are gradually increased during the training program. During the 2nd and 3rd years, fellows spend at least one clinical service month as a "co-attending", including a rotation supervising a Nurse Practitioner team. Integrated with clinical care, fellows participate in ongoing clinical research studies and quality improvement projects in the NICU. Fellows are members of the NICU Quality Improvement Team, participate in meetings and learn quality management techniques,
including computer database administration and analysis, as part of practice-based learning.

**On-call schedule:** flexible, generally every 5th night during the first year and every 6th night in the second and third years of training, all with in-house attending coverage.

A **Cardiology and Cardiothoracic Surgery rotation** in the 2nd or 3rd year supplements the experience acquired during NICU rotations. Fellows round on neonates with pre- and post-operative congenital heart disease, with the Pediatric Cardiologists, CT Surgery team and Pediatric Intensivists. They participate in pre- and postnatal consultations, attend catheterizations and the weekly congenital heart disease conference. The curriculum includes basic instruction on functional echocardiography.

The **Newborn Follow-up Program** is under the direction of Judy Lucas, M.D., Director of Developmental & Behavioral Pediatrics. Fellows participate in follow-up clinic one half day on alternate off-NICU-service weeks.

**Teaching Conferences**

Weekly teaching conferences include:

- **Neonatology Conference** - rotating schedule of Journal Club, M&M review, developmental physiology topics, and research updates by Neonatology or guest faculty & fellows
- **Pediatric Grand Rounds**
- **Pediatric Case Management Conference** – interesting pediatric cases, including neonatology
- **Daily Radiology Conference** including ultrasound review
- **Didactic teaching sessions**, 2 - 3 days/week, by attending (or fellow), for the NICU team

Additional scheduled conferences include a bi-weekly Perinatal Conference with the Department of Ob/Gyn MFM and Pediatric subspecialties, and a monthly Perinatal Ethics Conference with the Bioethics Department. Other lectures and interactive learning sessions are added to cover the fellowship core curriculum, with topics in physiology, biostatistics, Boards review (“Fellow Fridays”) sessions, and development of written, poster and spoken presentation skills. Topics covering general practice issues (e.g., medicolegal, sleep management, impaired physicians) and core ACGME competencies are included in annual series from the GME Office. Regular research conferences are also held by the laboratory research groups with which the fellow may be associated.

**Research Experience**

Fellows must develop clinical, laboratory and/or quality improvement research projects of their own. Assistance in study design, protocol submission, project execution, data analysis as well as publication submission is provided by the neonatal faculty and Research Coordinator.

First year fellows identify an area of interest for research and find a research mentor with whom they will work over the following two years. They are supervised by a **Scholarship Oversight Committee**, and take a course through which they become credentialed in Human Research Ethics and HIPAA compliance. Fellows must eventually attend and present at national meetings, and submit original work for peer-reviewed publication.

Various clinical and basic science research opportunities are available to fellows. Current expertise within the Division is strongest in **clinical research**, perinatal **epidemiology**, **quality improvement**, outcomes research and clinical **bioethics**. Specific research interests include surfactant therapy, prevention of infection, necrotizing enterocolitis, hypothermia treatment for HIE, HIE biomarkers, cue-based feeding, PDA management, procedural safety, and informed consent. In addition, **basic research** training is available under the supervision of investigators in basic science disciplines at the Albany Medical College. Other basic research opportunities stem from our close proximity to the major research facility of the New York State Department of Health. There are
ongoing quality improvement projects in infection prevention, intubation safety, unplanned extubation prevention, safe alarm management, reduction in BPD and ROP, feeding and growth optimization, and prevention of hypothermia during DR stabilization. The NICU is a member of the New York Statewide Perinatal Data System and the Vermont Oxford Network. In the 2nd or 3rd years, fellows attend the VON Quality Congress and participate in Regional Perinatal Outreach visits.

Alternate tracks available to satisfy requirements for scholarly activities include the Master’s Program in Clinical Bioethics at Albany Medical Center (with free tuition for fellows), or the Master of Public Health program at the University at Albany School of Public Health.

Please see the link under the faculty web page for representative publications.[link]

The Faculty

The Division of Neonatology includes the following faculty members (with areas of expertise):

Jennifer B. Cerone, M.D.  Assistant Professor of Pediatrics

David Clark, M.D.  Professor and Chairman, Department of Pediatrics
Intestinal maturation, protein digestion/absorption, intestinal microflora, inflammation & NEC

James J Cummings, M.D.  Professor of Pediatrics, Vice Chair for Faculty Development
Fetal and neonatal cardiorespiratory physiology, clinical trials, clinical outcomes research.

Marilyn A. Fisher, M.D., M.S.  Associate Professor of Pediatrics
Perinatal substance abuse. Medical education in Bioethics.

Gina M. Geis, M.D.  Assistant Professor of Pediatrics
Associate Fellowship Program Director
Medical education in Bioethics. Perinatal palliative care. Quality improvement.

Michael J. Horgan, M.D.  Professor of Pediatrics; Head, Division of Neonatology
Lung injury, surfactant therapy. Control of neonatal infections. Treatment of Hypoxic-ischemic injury

Rubia Khalak, M.D.  Assistant Professor of Pediatrics
Infectious diseases and immunizations in premature infants. Relationship of oxygen therapy practices to bronchopulmonary dysplasia. NEC.

Meredith Monaco-Brown, M.D.  Assistant Professor of Pediatrics
Neonatal brain injury

Upender Munshi, M.D.  Associate Professor of Pediatrics
Intestinal inflammation, NEC. PDA management. Perinatal substance abuse.

Joaquim Pinheiro, M.D., M.P.H.  Professor of Pediatrics
Director, Neonatal-Perinatal Medicine Fellowship Program
Neonatal epidemiology, outcomes research and quality improvement in neonatal care.
Neonatal airway management, intubation safety. Persistent pulmonary hypertension.

Angel Rios, M.D.  Clinical Professor of Pediatrics
Respiratory physiology, neonatal ventilation and neonatal nutrition

Kate Tauber, M.D.  Assistant Professor of Pediatrics
PDA diagnosis. Neonatal nutrition, feeding strategies.

Associate Faculty
Carolyn R. Levine, M.D.  Clinical Assistant Professor of Pediatrics
Neonatal lung injury, anti-inflammatory therapies

Phillip D. L. Pan, M.D.  Clinical Assistant Professor of Pediatrics
Perinatal/Neonatal Genetics, Perinatal ethical and legal issues

Newborn Follow-up Clinic
Judy Lucas, M.D.  Assistant Professor of Pediatrics
The Albany Area

Albany is nestled in New York's Hudson River Valley between the Adirondack and Catskill mountains. The diversity of the region's landscape generates four seasons of beauty, outdoor activities and entertainment: hiking, bicycling, skiing, boating, sailing and other fresh water sports on nearby mountain lakes, thoroughbred horse racing, minor league baseball and hockey, soccer and arena football, in addition to nationally ranked college basketball and hockey. The Pepsi Arena, Saratoga Performing Art's Center (SPAC), Tanglewood, and dozens of theater groups provide an outlet for enthusiasts of ballet, the theater, the symphony, live rock and contemporary concerts. SPAC serves as the summer home of the New York City Ballet and the Philadelphia Orchestra.

As the state capital, Albany is the seat of state government. The Albany area has a wide range of affordable housing, much within 10-20 minutes of the Medical Center. The Capital District has a thriving academic community featuring a variety of colleges and universities. Many of the local elementary schools are ranked among the best in the nation.

Albany is at the cross roads of Interstates 90 and 87, and is serviced by the Albany International Airport and a major Amtrak train station. The scenic Catskill, Adirondack and Berkshire mountains are a short drive away, and New York City, Boston and Montreal are easily reached by train or automobile.
Medical Center and Department Benefits

For further details and updates, please check our web site or contact us. Notable benefits include:

- Health care coverage
- Malpractice coverage
- Workmen's compensation
- Hospital subsidized day care facilities, for ages 8 weeks through kindergarten
- Vacation (3 weeks per year)
- Annual expenses to attend a national meeting in which the fellow presents research. Meeting time is not counted under vacation.
- Educational stipend toward the purchase of books/journals and membership in professional organizations
- Secretarial assistance and computer access
- Meals in the hospital cafeteria during the nights on-call
- Schaffer Medical Library privileges, including access to resources from home

Eligibility of candidates for fellowship training:

Fellowship applicants must complete pediatric residency training in an accredited program in the US or Canada before beginning their fellowship.

Candidates must be US citizens or permanent residents, or J-1 visa holders. Candidates bearing H-1 visas are not presently eligible to train at our institution.

The Albany Medical Center is an equal opportunity employer.

Application process:

Applications for fellowship positions are accepted only through ERAS, and should include at least 3 letters of recommendation using the Common Letter of Reference (LOR) format. Please use the embedded hyperlinks to visit the ERAS and National Residency Matching Program (NRMP) web sites for important deadlines that may change annually.

The Neonatology Fellowship Program can arrange and cover costs for overnight hotel stay for interviewees traveling to Albany, when necessary.

For additional information, please visit our web site at: www.amc.edu/Academic/GME/programs/Neonatology/index.html, or contact:

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