

Pediatric Pulmonology Fellowship University of WA/Seattle Children's Hospital

Program Overview/Introduction

Ronald L. Gibson, MD, PhD (Fellowship Program Director)

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Mission Statement

“Train pediatric pulmonologists to be skilled clinicians with a foundation in physiology, critical thinkers, avid teachers, and who improve care via scholarship and programmatic development”
and have FUN during the experience!



Fellowship Orientation- A Process

COVID-19 will still impact 2021-2022
(some meetings/lectures will be virtual)

- Meet with Program Director (PD)/Associate PD (frequent check-ins first mo)
- Meet and have frequent check-ins with Senior Fellow(s) for “real orientation”
- Introductory On-Boarding/Educational Sessions
 - Lectures from Faculty content experts on broad topics in first few months
 - Flexible bronchoscopy and “home ventilator” introduction starts in first 2 weeks
 - Shadowing expert Respiratory Therapists begins in first few months
 - Meet with all Staff and Faculty Members in first 3 months
- Review Fellowship Share Drive for Key References/Guidelines
- Review Pediatric Pulmonology Core Curriculum/Rotation Objectives
 - Located in Med Hub and on Shared Pulmonary Drive

Faculty and Roles/*Research Interests*

- Gregory J. Redding, MD
 - Division Chief, PI of the Pediatric Pulmonary Center Grant x 20+ years, Alaska Outreach Program
 - *Scoliosis and Thoracic Insufficiency Syndromes, Non-CF Bronchiectasis in Alaskan Natives*
- Matthew Abts, MD
 - Pulmonary Lead for Aero-digestive Program/Director of Flexible Bronchoscopy
 - *Bone Marrow Transplant and Pulmonary Outcomes*
- Maida Chen, MD
 - Director of Sleep Medicine
 - *Sleep related research in craniofacial and other disorders*
- Jonathan Cogen, MD, MPH
 - Associate Fellowship Program Director/Owner of Complicated Pneumonia-Empyema Pathway
 - *CF epidemiology, antibiotic stewardship, and climate change related research*
- Mary Crocker, MD, MS
 - General pulmonary medicine and asthma
 - *Asthma care in limited resource settings*
- Chelsea Davis, MD
 - General pulmonary medicine, CF, ventilator-dependent children
- Jason Debley, MD, MPH
 - General pulmonary medicine, ventilator-dependent children, severe asthma
 - *Translational research in airway biology and asthma*
- Amy DeTorri, MD
 - General pulmonary medicine and cystic fibrosis
- Laura Ellington, MD, MS
 - Inpatient pulmonary medicine
 - *Lung health in limited resource settings*



Faculty and Roles/*Research Interests* (2)

- Lourdes Del Rosso, MD
 - Associate Director of Sleep Medicine
 - *Restless Leg Syndrome*
- Laurie Eldredge, MD, PhD
 - Pulmonary Lead for inpatient BPD Clinical Program
 - *Role of macrophages and epithelial cells in neonatal lung injury*
- Ron Gibson, MD, PhD
 - CF Center and Fellowship Director, SCH CF Therapeutic Development Center
 - *Genetic modifiers of CF airway infection and lung disease; CF clinical trials*
- Luke Hoffman, MD, PhD
 - Director of CF Microbiology Laboratory
 - *CF airway and intestinal microbiology*
- Sarah Hofman DeYoung, MD
 - General pulmonary medicine, aerodigestive program, ventilator-dependent children
 - *Trach/vent related research*
- BreAnna Kinghorn, MD, MS
 - Member, Primary Ciliary Dyskinesia Referral Center
 - *PCD and Non-CF Bronchiectasis/Congenital Diaphragmatic Hernia*
- Carey Lockhart, MD
 - Pediatric Neurology and Sleep Medicine
- Susan Marshall, MD
 - Vice Chair for Medical Education
 - *CF Clinical trials and Medical Education*



Faculty and Roles/ *Research Interests* (3)

- Erin MacKintosh, MD
 - Pulmonary and Sleep medicine
 - *Pulmonary and Sleep Disorder manifestations of Marfan's syndrome*
- Dave Nichols, MD
 - Medical Director of the CF Therapeutics Development Network (TDN)
 - *Clinical (e.g. AZM/Tobra interaction) and Translational CF Research, TDN CF Research Scholars Program*
- Thida Ong, MD
 - Associate CF Center Director/Medical Director of QI in Pulmonary Division
 - *QI research in pulmonary and nutritional outcomes in CF*
- Robin Ortenberg, MD
 - General pulmonary medicine and rheumatic lung disease
- Steve Reeves, MD, PhD
 - Tech Guru/Lead-Wenatchee Outreach Clinic
 - *Translational research in airway matrix biology and asthma*
- Margaret Rosenfeld, MD, MPH
 - Assoc. Vice Chair for Research, Co-Director Fellows College, Co-Director of SCH Clinical Research Scholars Program
 - *CF Epidemiology, treatment and outcome measures in early CF lung disease, PCD, and global health*
- Michelle Sobremonte-King, MD
 - Pulmonary and Sleep medicine
 - *Neuromuscular disease and care of chronically-ventilated patients*

Faculty Roles / Research Interests (4)

- Amanda Striegl, MD, MS
 - Medical Director of Respiratory Therapy/Pulmonary Lead Neuromuscular Disease
 - *Quality improvement in technology dependent children and neuromuscular respiratory disease*
- Demet Toprak, MD
 - Director of the PFT Laboratory, Pulmonary Lead for Education of Medical Students
 - Interstitial lung disease, rheumatic lung disease and vocal cord dysfunction
 - *CF-related clinical research*
- Joanna Wrede, MD
 - Pediatric Neurology and Sleep Medicine
- Ben Wilfond, MD
 - Chief, Division of Bioethics
 - *Ethics/Shared Decision Making in Technology Dependent Children*
 - *Ethics related to Informed Consent/Genomic studies*
- Current Pediatric Pulmonary Fellows:
 - Leah Nuss, MD and Holly Vo, MD, MPH (Third Year)
 - Georgene Hergenroeder, MD, and Weston Powell MD, PhD (Second Year)
 - Ashley Han, MD, and Courtney Gallagher, MD (First Year)



Courtney Gallagher MD

(First Year Pulmonary Fellow)

- From Austin, TX
- Residency at Texas Children's Hospital
- Worked as a hospitalist in the PICU for almost 3 years after residency
- Research/clinical interests include BPD, neuromuscular disorders, and medical education
- Loves to bake, hike, visit National Parks (picture to the right from Bryce Canyon), and try new restaurants



Ashley Han MD

(First Year Pulmonary Fellow)

- Born in Hawaii, but grew up in Tacoma, WA
- Residency and chief year at Loma Linda Children's Hospital
- Research/clinical interest includes cystic fibrosis, but also excited to explore other areas in pulmonology!
- Enjoys movies, hiking, and exploring different cuisine



Weston Powell MD, PhD (Second Year Pulmonary Fellow)

- Born in Seattle, but grew up in CA
- Recently completed a sleep fellowship prior to starting his pulmonary fellowship
- Research interests include the intersection of sleep and circadian disorders with pulmonary diseases
- Favorite foods include raspberries, mussels and scallops
- San Francisco Giants baseball fan; enjoys cooking with friends and home improvement projects



Georgene Hergenroeder MD (Second Year Pulmonary Fellow)

- Born and raised in Houston, TX
- Residency at Texas Children's Hospital
- Interested in pursuing clinical care and research in children with CF, but also hopes to explore other research opportunities as well!
- Loves to hike, bike, and all things outdoors
- Unable to take her family dog Stella (picture here) to Seattle, but hopes to adopt a dog soon!



Leah Nuss MD

(Third Year Pulmonary Fellow)

- Originally from New Orleans, LA; went to medical school at Tulane University and residency at LSU-New Orleans
- Big New Orleans Saints fan! Has also adopted the Seattle Sounders for her MLS team
- Research/clinical interests include bronchopulmonary dysplasia and clinical outcomes
- Enjoys cooking, hiking, and crossword puzzles



Holly Vo MD, MPH

(Third Year Pulmonary Fellow)

- Originally from Southern CA, went to medical school at UC-San Diego and residency at UC-San Francisco
- Spent time teaching middle school in NYC and studying public health in Baltimore at Johns Hopkins
- Research/clinical interests include health equity, bioethics/shared decision making, technology dependent children
- Enjoys yoga, hiking with her two adorable miniature dachshunds, and traveling; eats more ketchup than anyone she knows!



COVID 19 and Clinical Training

- Training in the 2021-2022 Academic Year may still be impacted by COVID-19
- The comfort level of current trainees for specific patient care activities will be considered on an individual basis
- TELEHEALTH has emerged as a format for health care in our region
 - Continuity and sub-subspecialty clinic experiences will still include some Telehealth
 - Telehealth has provided some benefits to our patients/families

Equity, Diversity, and Inclusion (EDI)

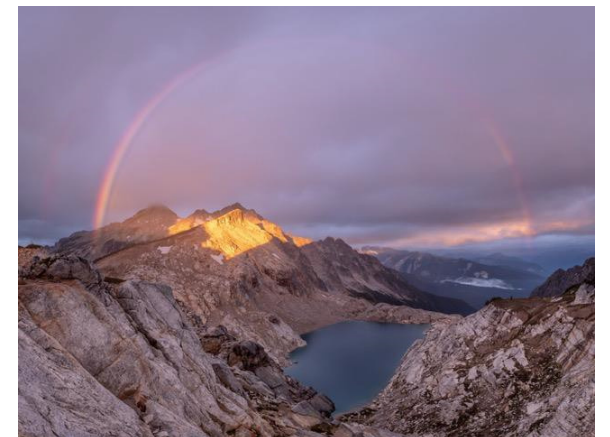
- We at Seattle Children's Hospital and in the Pediatric pulmonary division strive to create an environment inclusive to all people, patients, and families regardless of background or life experiences
- Seattle Children's Hospital leadership has a diversity and inclusion council to review organization's strategies, policies, and practices
- Equity, Diversity and Inclusion (EDI) training is ongoing at Seattle Children's Hospital, the University of Washington and within our Division
- We have enhanced our EDI training curriculum via seminars, lectures, and dedicated journal club topics, and we collaborate with graduate medical education at University of Washington
- For more information related to how UW GME is addressing EDI, please visit: <https://sites.uw.edu/uwgme/equity-diversity-inclusion/>

Clinical Training

- Year 1 Inpatient Activities (see objectives in Fellowship Curriculum)
 - 14-18 weeks of inpatient or consult service- most do 16 weeks
 - Mixture of TEAM 4 Pulm Service and the separate PULM Consult Service
 - PULM Service Fellow Covers Weekend for both Service and Consult teams
 - Night Call:
 - Weekend PM call by service fellow/attending
 - Weekday PM call from 7 PM-7 AM each night by “off-service” colleagues (Mon-Fri)
 - Year 1 Fellows included in Weekday PM night call pool starting in ~ January of Year 1
 - 2-week rotation on introduction to Ventilators/Respiratory Therapists (no PM call)
 - Focus on learning ventilator modes/set-up on lung model, shadow senior RTs in ICU/Ward
 - 2 weeks in CICU as a secondary fellow (no PM call)
 - Focus on cardiopulmonary interactions and care of children with complex congenital heart disease

Clinical Training

- Year 1 Outpatient Activities (see objectives in Fellowship Curriculum)
 - 4 weeks of SLEEP Medicine (may be divided into 2 two-week blocks)
 - ½ Day/Week of continuity clinic when not on inpatient service
 - Minimum of ½ Day/Week of Sub-Subspecialty Pulmonary Clinics when not on service
 - Neuromuscular, VENT, CF, Pulm HTN, Surgical Pulm F/U, Spine, Aerodigestive, RT
 - Schedule 1 week in advance on Fellows Calendar
 - Outreach Clinics (e.g., Alaska, Wenatchee)- exposure at least once over 3 years



Clinical Training (Years 2 and 3)

- Inpatient Rotations: 8 weeks/year (mixture of service and consult)
 - May do additional weeks in Years 2 and/or 3
- Outpatient Rotations:
 - ½ day continuity clinic/week when off-service
 - Minimum of 1-2 sub-specialty clinics/month when off-service
 - Individualized exposure to additional outreach clinics



Clinical Conferences/Meetings (Years 1-3)

- Journal Club (Intermittent Works in Progress)
 - Weekly: Fellows present ~ once every other month
- Radiology/Pathology Conference
 - Monthly with Drs. Otjen, Romberg and Deutsch- Year 1 fellows lead case introductions
- Pulmonary Physiology Discussion Group
 - Currently updating core physiology curriculum (meets 1-2 times/month)
 - Mixture of didactic sessions with problem-based learning
- Western States Clinical Conference
 - Monthly teleconference with ~ 10 programs, Year 1 fellows present x 1
- Divisional Meetings- weekly with varied topics (e.g., challenging cases, business)
- Complex pulmonary case conference-meets weekly
- Fellows College Curriculum
- Pediatric Pulmonary Center Curriculum
- Optional- specific research meetings

Teaching/Didactics

- Fellowship Education Committee (RG, JC, senior fellows)
 - On-boarding education, lectures, list of key papers/reviews/guidelines of care
- Fellows as Teachers
 - Case-based teaching during inpatient team rounds
 - Case-based teaching for elective residents and students
 - Chalk-Talks during inpatient rotations (1-2 times/week on service)
 - Lectures to Pulm Nurse Practitioners and Respiratory Therapists
 - Journal Club/Works in Progress talks
 - Oral or Poster Presentations at Regional or National Meetings
- Lectures for Fellows
 - Journal Club/Works in Progress talks by Faculty
 - Fellows core lecture series (e.g., ECMO, pulm HTN, fluid management)

Tracking- Arghhh!

- ACGME requires fellows logging weekly duty hours by activity
 - See senior fellow for guidance
 - One goal is to ensure no work hour violations
 - Use Med Hub database
- Keep Flexible Bronchoscopy Log
- Keep Weekly Cores Sign-out Sheets to evaluate breadth of clinical exposure and expose areas of deficiency/focus for future
 - See ACGME clinical areas of focus in Peds Pulm Curriculum,
 - Kept on Shared Pulmonary Drive

Research (Bare Bones- The Discovery is FUN!)

- Identify area of interest in first 6 months
 - Basic, translational, clinical, QI are all available
 - Meet with Program Directors and Specific Faculty to identify focus area
 - We can guide you to non-divisional faculty
- For those with interest in Clinical Research (recommended additional coursework):
 - MS or MPH Program at UW with application due in December of Year 1 (60 credits)
 - Maternal Child Health Certificate at UW (15 credits) or Biostatistics Certificate
 - Auditing of specific courses in biostatistics and epidemiology
- Formulate Scholarship Oversight Committee/Identify Mentors by the end of Year 1
 - At least 3 voting members, Program Director or Associate Program Director is Ad Hoc
 - At least 1 voting member must be from outside the Division
- At minimum, complete ABP-approved Scholarly Work Product to be eligible to take “the boards”
 - Master’s Thesis, Peer-reviewed publication with significant role, Extramural grant award, unpublished progress report for complex project (see ABP website)

Examples of Past/Present Fellow Research Projects and Possible Funding Opportunities

Select example of research projects for recent graduates:

- Laurie Eldredge (Role of macrophages in neonatal lung injury) (2016)
- Jonathan Cogen (Chronic AZM use in CF and Concern for Treatment-Emergent Pathogens) (2017)
- BreAnna Kinghorn (Asthma outcomes in South Dakota Natives) (2018)
- Erin MacKintosh (Evaluation of OSA in children with Marfan Syndrome) (2019)
- Laura Ellington (HIV infection and lung function in Kenyan Adolescents) (2020)
- David Panek (Sleep disordered breathing in children with early-onset scoliosis) (2020)

Select examples of possible funding opportunities that have been successful:

- CF Foundation Training Grants ([website](#))
- Early Career Awards from Thrasher Research Fund ([website](#))
- Firland Foundation Research Grants ([website](#))
- Arthur Rosenfeld Endowment (specific to pediatric pulmonary fellows at Seattle Children's)

Evaluations

- ACGME Milestone Evaluations of Fellows every 6 months
 - Officially twice yearly by Faculty, yearly by other disciplines
 - 6 ACGME competencies from novice to expert (1-5)
 - Additional pulmonary specific measures (e.g., physiology, bronchoscopy)
 - Clinical Competency Committee reviews scores and comments; makes recommendations on progress/goals (Redding, Debley, Ong, Toprak, [Cogen and Gibson-ad hoc])
- Annual In-Site Peds Pulm Practice Sub-Board Exams
 - Review strengths and weaknesses from exam scores
- Program Evaluation by Fellows and Faculty
 - Annual review meeting of all rotations and meetings to improve curriculum
 - Fellows to evaluate Faculty and Program annually
 - Program Executive Committee Annual Meeting (Redding, Striegl, Fellow, Gibson-ad hoc)
 - Fellow Education Committee (Gibson, Cogen, 3rd Yr Fellows)

Free Time!

- New concept after residency experience!
 - Can be unsettling but consider this the “educational playground”
- Case-based reading to gain expertise in Peds Pulmonary
 - “Humility is only a case away”
- Read a Peds Pulmonary textbook by end of Fellowship
- Coursework
- Explore research ideas
- Refine research ideas
- Conduct Research
- Have Fun!



Additional Resources

- In lieu of coming to Seattle for a physical interview (due to COVID-19 restrictions), University of Washington GME has created the following videos to provide more information related to fellowship and Seattle Children's Hospital
- Resident's look inside Seattle Children's Hospital
<https://youtu.be/sbh17XpT5PA>
- Look into research at Seattle Children's Hospital
<https://youtu.be/v6WK8-F34WA>
- Message to fellows from Dr. Walker-Harding (Chair of Pediatrics, University of Washington)
<https://youtu.be/XS3NaoAkNfM>

Our Fearless Leaders Ron (left) and Greg (right)



Celebration for Greg at 2019 ATS Meeting



CF Team at 2019 NACFC Meeting



Eating at 2019 ATS Meeting



Halloween in the Pulmonary Division!



Hiking in the Pacific Northwest!

