



**PEDIATRIC FELLOWSHIP
SCHOLARLY TRAINING
HANDBOOK**

2018-2019

Department of Pediatrics
UNIVERSITY OF VIRGINIA

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Dear Fellows of the University of Virginia Children's Hospital:

Welcome! This is indeed an exciting time in your career. You have chosen the most gratifying of medical specialties and have completed a rigorous program of training and mentorship. Rather than moving directly to primary pediatric care, you have chosen to pursue additional training in a pediatric subspecialty, and have honored us with your choice of programs. We appreciate that choice, and will not waver in our dedication to our responsibility to help you become outstanding pediatricians.

Subspecialty training and its practice in the U.S. is evolving. In past years, fellowship programs were nearly uniform in content design, comprising doses of clinical and research training as specified by the respective sub-board. The trend now, however, is to recognize that a major responsibility of training programs is to position the trainee for success in the career she or he has chosen, including not just the subspecialty but also a niche within that subspecialty. We will do that for you, tailoring the program to your needs as much as possible, while at the same time retaining a rigorous backbone of training in core skills. These include (but are not limited to) the acquisition of a basic toolkit of skills in study design and analysis, medical communication, career development, and continuous education and quality improvement.

I personally encourage you to embrace two important components of your subspecialty education. The first is the realization that your education starts with you. Strive to configure an educational and career development plan that not only works for you now, but will also serve you for many years to come. We are here to help you with this, not only teaching you, but also mentoring you to become a highly successful lifelong learner and teacher. Also, I strongly invite you to become an active member of our community, including other fellows, our residents, our faculty and the broader Children's Hospital. Our community is part of what makes us special, and both we and you will be stronger from your involvement.

It is my honor to contribute to your education as master physicians, entrusted with the welfare of children. Enjoy the process!

Sincerely yours,

A handwritten signature in black ink, appearing to read "J. Nataro".

James P. Nataro, M.D., Ph.D., M.B.A.

Benjamin Armistead Shepherd Professor of Pediatrics

Chair, Department of Pediatrics

Office: 434 924-5093

August, 2018

It is my privilege and great pleasure to welcome you to this new and stimulating part of your career progression. As Vice Chair for Academic Affairs I am tasked with the coordination of fellowship training in the Department of Pediatrics in the School of Medicine at the University of Virginia and look forward to helping and supporting you in Charlottesville.

We are confident that you will find a nurturing environment filled with empathetic mentors and a team of like-minded scholars to ensure success in your endeavors.

I look forward to meeting with each of you as you embark on or continue with your fellowship training, the goal of which is to address your specific needs and desires in answering “What do you want to do in your future academic career?” We anticipate the answer may change as your training progresses but our objective is to know how best to flex teaching and clinical opportunities as your individual needs and wishes evolve. You will work primarily with your divisional fellowship program director and faculty, but I am here to support those activities and help in any way that you and your team may find useful.

The Department’s paradigm for fellowship training is based upon a specific curriculum into which scholarly projects are inserted. This is clearly a challenge as our trainees pursue many diverse topics that may include bench or clinical research, quality initiatives and/or curricula development. The beauty of our system however, is that we can design a program that is broad, allowing you to explore options to fulfill your specific agenda and to be consistent with your career choices and goals.

Again, welcome and please call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert A. Sinkin".

Robert A. Sinkin, M.D., M.PH.

Vice Chair for Academic Affairs

Division Head, Neonatology Department of Pediatrics

UVa Children’s Hospital 434-924-5428

rsinkin@virginia.edu

The Mission and Values of the Department of Pediatrics Fellowship Programs

The mission of the UVa Pediatric Fellowship Programs is to facilitate the transformation of pediatricians into academically-minded pediatric subspecialists using mentored experiences, scholarly approaches, and competency-based graded independence.

- We value the development of subspecialty board certified faculty members and future academic leaders.
- We provide competency-based fellowship education in the setting of specialized clinical excellence and family-centered care.
- We provide education in scholarly activities and opportunities for mentored, hands-on, applications resulting in the dissemination of new findings and the development of lifelong scholarship.

Scholarship Training Overview

1. Scholarly Activity Requirements

In line with the Accreditation Council for Graduate Medical Education (ACGME) and American Board of Pediatrics (ABP) requirements, fellows must engage in a scholarly project in his or her subspecialty area with the guidance of the fellowship director and produce a written work product at the end of fellowship training. *The Vice Chair for Academic Affairs is also available for consultation and guidance during this formative period.*

A. Fellow Responsibilities

- 1) It is the responsibility of the fellow to complete the core curriculum and document participation with a training log. In addition, the use of the ABP core knowledge in scholarly activities is highly encouraged (Appendix G).
- 2) Fellows must work with the fellowship director and mentor(s) to develop a specific plan for scholarship training and have it approved by the Scholarship Oversight Committee (SOC).
- 3) Fellows must submit the work product and a comprehensive document outlining the product's impact on career development and education to the ABP upon completion of the fellowship training.

B. Program Director Responsibilities

- 1) The fellowship program director is responsible for notifying all fellows of the scholarly activity requirements necessary for certification upon entry to the subspecialty training program.
- 2) The fellowship program director in collaboration with SOC and mentors shall guide fellows in developing an individualized plan for scholarship training and development of a work product.
- 3) The fellowship program director must monitor progress on fellow's scholarship training and completion of a work product in collaboration with the SOC.
- 4) Each fellow's work product is expected to be submitted to ABP by the fellowship program director along with the final evaluation form, the Verification of Competence Form.

C. Scholarly Activity Timeline

	FIRST YEAR	SECOND YEAR	THIRD YEAR
July	Meet with fellowship program director and begin planning scholarship training.	Fellows should be well on their way with project proposals.	Fellows are expected to be summarizing their fellowship efforts through: -Drafting a manuscript -Preparing local, regional or national submissions of their work for presentation at meetings. -Packaging their course work and scholarly product into a portfolio for job seeking efforts. -Finishing research and submitting research manuscript for publication before June. SOC Meeting Review progress and submit written report on research. Have all members sign SOC meeting form. December 1st Submit interim report to the Pediatric Fellowship Office.
August	Solicit ideas from faculty within the fellow's divisions and reaching out to potential mentors.	The fellow should be enrolled or planning a specific course curriculum to supplement the Department Core Curriculum.	
September			
October			
November	SOC First Meeting Establish a schedule for ongoing feedback and meeting guidelines. This includes mapping out potential courses, library work, program development and considerations for funding resources. December 1st SOC Roster Due to the Pediatric Fellowship Office.	November SOC Meeting -If fellow's education plan needs to be adjusted, submit report to the SOC. -Have all members sign SOC meeting form.	
December		December 1st Submit interim report to the Pediatric Fellowship Office.	
January			
February			
March			
April			
May	May SOC Meeting Meet with all members of the SOC and submit written report for education plan. Committee members must sign SOC meeting form.	May SOC Meeting -Review education plan and progress. Have all members sign SOC meeting form.	
June	June 1st Submit Scholarship Training Plan and Proposed Project to the Pediatric Fellowship Office.	June 1st Submit interim report to the Pediatric Fellowship Office.	

* Pediatric Fellowship Office: Janie Nowicki, Phone: (434) 243-6343
RPediatricAcademicAffairs@hscmail.mcc.virginia.edu

2. Core Curriculum

All fellows must participate in a core curriculum in scholarly activities. The Department of Pediatrics provides options for core curriculum designed to provide skills that lead to an in-depth understanding of biostatistics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical or research protocols, critical literature review, principles of evidence based medicine, ethical principles involving clinical research, and the achievement of proficiency in teaching.

Fellows are expected to keep a log of their own learning activities and to provide this information to their Scholarship Oversight Committee and Fellowship Program Director.

A. Required Learning Activities

- 1) *Research Ethics and Compliance Training Modules* by the Collaborative Institutional Training Initiative (CITI) Program (Appendix C, Page 31).
- 2) *Departmental Fellows Forum*: The forum will be held on the 1st and 3rd Tuesday every month and serves as part of the Departmental core curriculum. Attendance will be monitored and minimum of 75% attendance required for eligibility for travel funds.

B. Other Training Opportunities

Following training opportunities are optional and must be approved by fellowship director and the Vice-Chair for Academic Affairs prior to initiation.

- 1) Quality Improvement Research – see Institute for Quality and Patient Safety.
<https://uvahealth.com/about/quality-safety>
- 2) Education Training Track (Tomorrow's Professor Today program):
<http://cte.virginia.edu/programs/tomorrows-professor-today/>
- 3) Bench/Basic Research:
For those interested in Bench Research, additional course work and training should be discussed and planned with your mentor. Participation in the Certificate in Public Health Sciences program is encouraged for all clinician investigators.
- 4) Educational Programs:
There are many educational opportunities and programs through the Health System and the University that may offer significant assistance meeting a fellow's goals and training needs. Many of the ongoing lecture series within the medical center are at no cost. The following courses, however, require tuition payment. A grant may cover some if not all of the expenses for various course. Fellows should be meeting with their program directors to determine whether pursuit of any of the following options is desirable.

a) *Master of Public Health Program*

The Master of Public Health (MPH) Program at the University of Virginia offers an individualized and interdisciplinary experience that focuses on the competencies professionals need to improve the health of communities and individuals. The curriculum provides graduate professional training in quantitative and qualitative research methodologies; health policy, law and ethics; translational and community-based research; and community engagement strategies. Core courses in the MPH Program include the following:

- PHS 7000 Introduction to Biostatistics
- PHS 7010 Introduction to Epidemiology
- PHS 7050 Public Health Law and Ethics
- PHS 7100 U.S. Health Care Policy
- PHS 7170 Data Management in Population Health with SAS
- PHS 7180 The Practice of Public Health
- PHS 7840 Human Subjects Research Ethics

b) *Master of Science in Clinical Research*

The Master of Science in Clinical Research (MS-CR) Program provides training to health and medical professionals who desire and need quantitative and analytic skills in patient-oriented and translational research, as well as more traditional clinical investigation. Using an interdisciplinary blend of biostatistics, epidemiology, clinical trial design, medical informatics, and health services research, the MS-CR program equips clinical researchers with the statistical and data management tools needed to conduct translational clinical and comparative effectiveness studies in medical care. Core courses in the MS-CR Program includes the following:

- PHS 7000 Introduction to Biostatistics
- PHS 7010 Fundamentals of Epidemiology
- PHS 7170 SAS & Data Management in Population Health
- PHS 8950 Supervised Clinical Research
- PHS 7001 Introduction to Biostatistics II
- PHS 7011 Theory & Quant Epidemiology
- PHS 7120 Comparative Effectiveness & Outcomes
- PHS 7840 Human Subject Research

3. Scholarly Activities

In addition to participating in a core curriculum in scholarly activities, all fellows must engage in projects in which they develop hypotheses or in projects of substantive scholarly exploration and analysis that require critical thinking. Areas in which scholarly activity may be pursued include, but are not limited to: basic, clinical, or translational biomedicine; health services; quality improvement; bioethics; education; and public policy.

Fellows must gather and analyze data, derive and defend conclusions, place conclusions in the context of what is known or not known about a specific area of inquiry, and present their work in oral and written form.

A SOC in collaboration with the fellow, the mentor, and the fellowship program director will determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activities.

In addition to biomedical research, examples of acceptable activities might include a critical meta-analysis of the literature, a systematic review of clinical practice with the scope and rigor of a Cochrane review, a critical analysis of public policy relevant to the subspecialty, or a curriculum development project with an assessment component. These activities require active participation by the fellow and must be mentored. The mentor(s) will be responsible for providing the ongoing feedback essential to the trainee's development.

4. Work Product of Scholarly Activities

Involvement in scholarly activities must result in the generation of a specific written "work product." Examples include, but are not limited to:

- A. A peer-reviewed publication in which a fellow played a substantial role
- B. An in-depth manuscript describing a completed project
- C. A thesis or dissertation written in connection with the pursuit of an advanced degree
- D. An extramural grant application that has either been accepted or favorably reviewed
- E. A progress report for projects of exceptional complexity, such as a multi-year clinical trial
- F. A critical meta-analysis of the literature
- G. A systematic review of clinical practice with the scope and rigor of a Cochrane review
- H. A critical analysis of public policy relevant to the subspecialty
- I. A curriculum development project with an assessment component

5. Scholarship Oversight Committee

Each fellow must have a Scholarship Oversight Committee.

1) SOC Membership

The SOC should consist of three or more individuals, at least one of whom is based outside the subspecialty discipline; the fellowship program director may serve as a trainee's mentor and participate in the activities of the oversight committee, but should not be a standing (i.e., voting) member.

2) SOC Responsibilities

- A. Oversee and assist in the development of a specific scholarship plan for an individual fellow
- B. Determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activity

- C. Determine a course of preparation beyond the core fellowship curriculum to ensure successful completion of the project
- D. Document that the fellow followed both the specific plan and the departmental core training curriculum and performed the approved project
- E. Evaluate the fellow's progress as related to scholarly activity
- F. Meet with the fellow early in the training period and regularly thereafter
- G. Require the fellow to present/defend the project related to his/her scholarly activity
- H. Advise the fellowship program director on the fellow's progress and assess whether the fellow has satisfactorily met the guidelines associated with the requirement for active participation in scholarly activities
- I. Approve a comprehensive report to the ABP, written by the fellow, in order to complete the requirements for verification of training and for application for board certification

Scholarly Oversight Committee Forms are located in Appendix A, Page 14.

6. Resources for Scholarship Training

A. Pediatrics Fellow Grants-In-Aid

Fellow Grants-In-Aid intends to initiate, sustain and enhance research carried out by fellowship trainees in the ACGME-accredited subspecialty programs of the UVA Department of Pediatrics. Priority is given to research that is important to the health and well-being of infants and children and shows promise for publication and external funding. Grant-In-Aid Awards are for the period of one year and are intended to support innovative child health related research projects. Applications are accepted on a rolling basis (no deadline).

- 1) **Eligibility:** Any fellow in good standing may apply.

Application: The guidelines/forms for submission of this grant can be found in Appendix B, Page 20. Completed applications are submitted to Janie Nowicki (RPediatricAcademicAffairs@hscmail.mcc.virginia.edu) and the Vice Chair for Academic Affairs (rsinkin@virginia.edu).

Applications should include the following documents:

- Face Page (Page 22)
- Description, Performance Sites, and Personnel (Page 23)
- Table of Contents (Page 24)
- Budget for Entire Proposed Period of Support (Page 25)
- Biographical Sketch-Principal Investigator (Page 26)
-Other Biographical Sketches
- Other Support (Page 28)
- Research Plan; research plan may not exceed three (3) pages. (Page 29)

- 2) **Review Process and Criteria**

The Vice Chair will review the submission for completion and compliance with the guidelines. The application and will then be sent out for review to at least two experienced faculty members of the UVA Department of Pediatrics. It is expected that the reviewers will

complete a written review within 4 weeks' time and provide constructive critiques by email to the Vice Chair who will then prepare a brief written summary review for the applicant. A brief in person review session with the trainee and mentor will be set up with the reviewers. Depending on the review, the grant application may be denied, accepted with required modifications/clarifications or accepted outright. Success of the application will depend on a sound hypothesis, a reasonable scientific approach, and contributions of the work to the fields of child health or development. The review committee will consider the following criteria in assessing all proposals.

- **Significance:** Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge and its relationship to Pediatric Health and Medicine be advanced? What will be the effect of these studies on the concepts or methods that drive this field?
- **Scientific Approach:** Are the conceptual framework, design (including composition of study population), methods, and analyses adequately developed, well integrated, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics?
- **Innovation:** Does the project employ novel concepts, approaches or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- **Investigator:** How does this work link to future career plans for the trainee? Is the investigator appropriately trained to carry out this work, or how will any necessary training will accomplished? Is the work proposed appropriate to the experience level of the trainee? Promise for outside funding?
- **Environment:** Does the scientific environment in which the work will be done contribute to the probability of success? Do the proposed experiments take advantage of unique features of the scientific environment or employ useful collaborative arrangements? Is there evidence of institutional support? Please outline the mentorship plan in this section (including oversight of grant finances administration).

3) ***Awards***

The Department of Pediatrics awards fellows up to \$5,000. Fellows must work in the laboratory or clinic of a faculty mentor with an active research program. Mentor appointments in the Department of Pediatrics are not required.

4) ***Final Report for Grant-In-Aid***

A final project summary restating the specific aims, outlining progress/pitfalls and noting publications, presentations or grants must be submitted to the Vice Chair for Academic Affairs within one month of the grant's termination.

5) ***Additional Information for Grant-In-Aid***

Continuation Requests: Project is expected to be completed within one year. Should there be both time and funds remaining after one year and the project is ongoing, an extension will be granted for up to one year, upon receipt of a progress report and request for the extension that

is cosigned by the faculty mentor. The progress report should be no greater than one page and include the progress in the project to date, the barriers experienced, and the expected use of remaining funds and time. Continuation request should be sent to the Vice Chair by the end of the third quarter of the grant period.

B. Travel Benefits for Fellows

The Department of Pediatrics will support fellows attending professional meetings (e.g., Pediatrics Academic Society or fellow's subspecialty society meeting) up to \$800 per academic year. Upper level fellows must present an abstract in order to receive travel benefits from the department.

To be eligible for Department support fellow must have attended at least 75% of all Fellow's Forum meetings, meet all deadlines and departmental policies below.

- 1) Additional funds needed must come from the division (recommended maximum of \$1400 total). Early planning is expected to minimize travel costs. Please talk with your Program Director for approval of travel costs and reimbursements before making plans.
- 2) Grant funds if available should be used before department funds.
- 3) Many societies offer travel awards. Fellows are encouraged to apply for these awards. The department will consider matching funds for these awards for additional meetings.
- 4) Certain conference registrations and travel expenses may be paid for in advance; others require reimbursement to the fellow after the travel has occurred. Contact your division fellowship coordinator to obtain guidelines regarding reimbursements for specific expenses.
- 5) Foreign travel is NOT supported by the Department for any fellow (Canada is the exception).

Travel Benefit Application: The fellow must submit a Travel Benefit Application (Appendix D, Page 33) to the Pediatric Fellowship Office (RPediatricAcademicAffair@hscmi.virginia.edu) 6 weeks prior to the meeting they attend. Upper level fellows are required to include their abstract and acceptance letter with the application.

Appendix A:
Scholarly Oversight Committee Forms

**University of Virginia Children’s Hospital Pediatrics
Subspecialty Fellowship Programs**

(Each division has a fellow folder)

Scholarship Oversight Committee Membership

Fellow:

Program:

Dates of Fellowship Training:

Primary Mentor:

Department/Division:

Committee Member:

Department/Division:

Committee Member:

Department/Division:

Other Committee Member:

Department/Division:

Fellowship Director:
(*ex officio*)

*A minimum of three faculty members in addition to the fellowship director is required to compose an appropriate Scholarship Oversight Committee (SOC). Two individuals should be senior faculty, capable of providing appropriate guidance to the fellow. One individual on the SOC must not be a member of the division in which the fellow is training.

**University of Virginia Children's Hospital
Pediatric Subspecialty Fellowship Programs**

(Each division has a fellow folder)

SOC Meeting Report Form (Page 1 of 2)

Fellow:

Program:

Dates Fellowship Training:

Education Plan Update:

Scholarly Project(s) Update:

Progress Report(s):

Presentation(s):

Publication(s):

Challenges Identified:

Summary and Goals:

SOC Meeting Report Form (Page 2 of 2)

We have reviewed the fellow's education plan update and scholarly projects update. We have reviewed the fellow's challenges and offered advice. We have reviewed and approved the fellow's summary and goals with any amendments as noted. Please include documentation for education plan update, projects update, challenges or summary as needed and faculty comments and recommendations following signatures.

Name:

Signed:

Name:

Signed:

Name:

Signed:

Name:

Signed:

Name:

Signed:

Name:

Signed:

Date submitted:

Faculty Notes and Comments:

**University of Virginia Children's Hospital Pediatrics
Subspecialty Fellowship Programs**

(Each division has a fellow folder)

Scholarship Education Plan (page 1 of 2)

Fellow:

Program:

Dates of Fellowship

Training:

Overall Plan for Fellow's Education: (Should be a Narrative and should state the specific track the fellow is on i.e. Basic Research; Clinical Research; Education of Safety and Quality)

Departmental Core Curriculum: (Select from Departmental Fellows core curriculum handout and list here)

Division Conferences and Educational Activities: (Select appropriate conferences and activities that relate to Educational plan)

Individual Coursework: (Select appropriate courses that relate to Educational plan)

Scholarship Education Plan (page 2 of 2)

We have reviewed this plan for the fellow's scholarship education and approve it as discussed and amended if applicable. Please include documentation for the education plan as needed and faculty comments and recommendations following signatures.

Name: Signed:

Name: Signed:

Name: Signed:

Name: Signed:

Name: Signed:

Name: Signed:

Date submitted:

Faculty Notes and Comments:

Appendix B:
Fellows Grants-In-Aid Submission Guidelines and Forms

Investigator Agreement

In submission of the attached proposal, I, as principal investigator, agree to do the following:

- Maintain all required human investigation and/or animal use regulatory requirements and documents throughout the active period of the grant.
- Oversee the financial records of the account throughout the active period of the grant.
- Immediately provide financial coverage for any unintended overruns via other grant support or divisional funds.
- Provide a timely and complete progress report by the due date one month before the grant period ends (email reminders will be delivered).
- I understand that failure to provide necessary oversight and communication regarding this proposal will result in forfeiture of funding.

Signature(s): _____

Principal Investigator (Trainee)

Program Director

Research Mentor

UVa Department of Pediatrics Fellowship Research Grant Application

TITLE OF PROJECT (Do not exceed 56 characters, including spaces and punctuation.)

PRINCIPAL INVESTIGATOR

NAME (Last, first, middle)

DEGREE(S)

NAME OF MENTOR

POSITION TITLE:

**DEPARTMENT, SERVICE,
LABORATORY, OR
EQUIVALENT:**

DIVISION:

MAILING ADDRESS:

**TEL:
FAX:**

E-MAIL ADDRESS:

**HUMAN
SUBJECTS**

- No
 Yes

**If "Yes",
Exemption No.**

or
IRB date

Protocol No.

Expiration
date

**VERTEBRATE
ANIMALS**

- No
 Yes

**If "Yes",
IACUC**

Approval
date

Protocol No.

Expiration date

**DATES OF PROPOSED PERIOD OF
SUPPORT**

**COSTS REQUESTED FOR BUDGET
PERIOD**

LAY SUMMARY:

SIGNATURE OF APPLICANT:

SIGNATURE OF MENTOR:

SCIENTIFIC SUMMARY

- State the application’s broad, long-term objectives and specific aims, making reference to its **pediatric health relatedness** of the project.
- Describe concisely the research design and methods for achieving these goals.
- Avoid summaries of past accomplishments and the use of the first person.
- This description is meant to serve as a succinct and accurate description of the proposed work when separated from the application.

DO NOT EXCEED 200 WORDS

PERFORMANCE SITE(S)

- Indicate where the work described in the Research Plan will be conducted.

KEY PERSONNEL

ii.Name and Department/Center	Signature	Role on Project

List Principal Investigator (you), Faculty Mentor (If applicable) and Collaborator(s) List only individuals who contribute in a substantive way to the scientific development and execution of the project.

**RESEARCH GRANT
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Biographical Sketch-Principal Investigator(<i>Not to exceed three page</i>).....	5
Other Biographical Sketches (<i>Not to exceed two pages of each</i>).....	
Other Support.....	
 Research Plan (<i>Maximun of 3 pages not including literature cited</i>)	
Specific Aims.....	
Background and Significance.....	
Research Design and Methods including statistical analysis.....	
Literature Cited.....	
 Support Documents (<i>append all those that are applicable</i>)	
Human Subjects Approval.....	
Vertebrate Animals Approval.....	
Mentor’s Statement of Support.....	
Consultant’s Statement of Support.....	
Investigator Agreement (required).....	

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Fill in the name of the senior/key person or other significant contributor.

eRA COMMONS USER NAME (credential, e.g., agency login): The "eRA Commons User Name" field is required for the PD/PI (including career development and fellowship applicants), primary sponsors of fellowship applicants, all mentors of candidates for mentored career development awards, and candidates for diversity and reentry research supplements.

POSITION TITLE: Fill in the position title of the senior/key person or other significant contributor.

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Start Date MM/YYYY	Completion Date MM/YYYY	FIELD OF STUDY

A. Personal Statement

Briefly describe why you are well-suited for your role(s) in this project. Relevant factors may include: aspects of your training; your previous experimental work on this specific topic or related topics; your technical expertise; your collaborators or scientific environment; and/or your past performance in this or related fields.

B. Positions and Honors

List in chronological order concluding with the most recent honors and awards. Clinicians should include information on any clinical licensures and specialty board certifications that they have achieved.

C. Contributions to Science

Briefly describe up to five of your most significant contributions to science. The description of each contribution should be no longer than one half page, including citations.

For each contribution, indicate the following:

- the historical background that frames the scientific problem;
- the central finding(s);
- the influence of the finding(s) on the progress of science or the application of those finding(s) to health or technology; and
- your specific role in the described work.

D. Additional Information: Research Support and/or Scholastic Performance

List ongoing and completed research projects from the past three years that you want to draw attention to.

Briefly indicate the overall goals of the projects and your responsibilities. Do not include the number of person months or direct costs.

Postdoctoral applicants: List by institution and year **all** graduate scientific and/or professional courses with grades. In addition, explain any grading system used if it differs from a 1-100 scale; an A, B, C, D, F system; or a 0-4.0 scale. Also indicate the levels required for a passing grade.

YEAR	COURSE TITLE	GRADE
------	--------------	-------

For more information and the blank biographical sketch form, please visit the following link:

<https://grants.nih.gov/grants/forms/biosketch.htm>

Additional biosketch pages for research mentor and collaborators

OTHER SUPPORT

Format

NAME OF INDIVIDUAL

ACTIVE/PENDING

Project Number (Principal Investigator) Project Source Title of Project (<i>or Subproject</i>)	Dates of Approved/Proposed % Effort Annual Direct Costs
---	---

The major goals of this project are...

OVERLAP (*summarized for each individual*)

Samples

ANDERSON, R.R.

ACTIVE

2 R01 HL 00000-13 (Anderson, R.R.) NIH/NHLBI Chloride and Sodium Transport in Airway Epithelial Cells	3/1/94-2/28/97 \$186,529	30%
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The major goals of this project are to define the biochemistry of chloride and sodium transport in airway epithelial cells and clone the gene(s) involved in transport.

5 R01 HL 00000-07 (Baker, J.R.) NIH/NHLBI Ion Transport in Fetal Lung	4/1/91-3/31/96 \$122,717	10%
---	-----------------------------	-----

The major goal of this project is to study chloride and sodium transport in normal and cystic fibrosis fetal lung.

PENDING

DCB 950000 (Anderson, R.R.) National Science Foundation Chloride and Sodium Transport in Airway Epithelial Cells	12/01/95-11/30/97 \$82,163	20%
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The major goals of this project are to define biochemical properties of liposome membrane components and maximize liposome uptake into cells.

A. Specific Aims

- List the broad, long-term objectives and what the specific research proposed in this application is intended to accomplish. State the hypotheses to be tested and the relevance to **Pediatric Health**.

Recommended Length of Section:

-Grant-in-Aid Awards: 1/2 page (total application not to exceed 3 pages)

B. Background and Significance

- Briefly sketch the background leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps the proposed project is intended to fill. State concisely the importance and **Pediatric Health** relevance of the research described in this application by relating the specific aims to the broad, long-term objectives.

Recommended Length of Section

-Grant-in-Aid Awards: 1/2-3/4 page (total application not to exceed 3 pages)

C. Preliminary Studies

- **Not required for Clinical and Postdoctoral Fellow Applications but encouraged if you have it.** Subsequent requests for funds for the same project must include preliminary studies.
- Use this section to provide an account of the principal investigator's preliminary studies pertinent to the application and/or any other information that will help to establish the experience and competence of the investigator to pursue the proposed project.

Recommended Length of Section

-Grant-in-Aid Awards: 1/2-3/4 page (total not to exceed 3 pages)

CI. Research Design & Methods

- Describe the **research design and the procedures** to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.
- Include when appropriate the planned statistical analysis and how sample size was determined. Describe any new methodology and its advantage over existing methodologies. Discuss the **potential difficulties and limitations** of the proposed procedures and **alternative approaches to achieve the aims**. As part of this section, **provide a tentative sequence or time-table** for the project.

Recommended Length of Section
-1 page (total not to exceed 3 pages)

G. Literature Cited

- May exceed page limitations of application (see previous pages) but should be limited to relevant and current literature. Each reference must include the title, names of all authors, book or journal, volume number, page numbers, and year of publication for all cited works. It is important to be concise and to select only those literature references pertinent to the proposed research.

H. Consultants/Collaborators

- Attach appropriate letters here from all individuals confirming their roles in the project.

I. Human Subjects Approval

- IRB/HIC approval is not required at the time of submission. HOWEVER, if the proposal is accepted for funding approval will be required **prior** to releasing funds. **Please note that if the protocol does not receive IRB approval within six months of the funding start date, funds may be revoked.**

J. Vertebrate Animals Approval

- IACUC approval is not required at the time of submission. HOWEVER, if the proposal is accepted for funding approval will be required **prior** to releasing funds. **Please note that if the protocol does not receive IACUC approval within six months of the funding start date, funds may be revoked.**

Appendix C:

CITI Training Instructions

Go to www.citiprogram.org and create an account by selecting “Register”

- Step 1: Select your Organization Affiliation (University of Virginia and continue to Step 2).
- Step 2: Enter your personal information and continue to Step 3.
- Step 3: Create your User Name and Password and Security Question and then continue to Step 4.
- **NOTE: You will need this username and password again so please keep.**
- Step 4: Answer demographic questions and continue to Step 5.
- Step 5: Determine if you want to receive CEU for completing the course and continue to Step 6.
- Step 6: Provide UVA information (Research role select: Clinical Researcher) and continue to Step 7.
- Step 7: Answers Questions 1 – 6 and then Complete Registration.

→ Question 1: Select only the box that reads “Check this box if you are a health sciences Researcher (IRB-HSR researcher)”

→ There are 5 modules to complete with this training and it **will take about and 1 hour to complete.**

→ Question 2: Select GCP for Clinical Trials with Investigational Drugs and Biologics (ICH Focus)

→ There are 13 modules and this **will take about 3-4 hours to complete**

→ **Per NIH communication September 2016, you need to complete this training in order to work on any NIH funded research. See the UVA SOM email about this attached and the link to the NIH policy announcement below.**

→ <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-148.html>

→ Question 3: Select nothing in this section.

→ Question 4: Select **Biomedical Responsible Conduct of Research Course.**

→ Question 5: Select **Yes** for the Conflicts of Interest course.

→ Question 6: Select **Not at this time** for the Export Control course. ” and select Complete Registration.

→ Select Finalize Registration.

This will bring you to your “Course” page. You should see the following courses in your course list:

- IRB for Health Sciences Research (IRB-HSR): ALL RESEARCH
- GCP for Clinical Trials with Investigational Drugs and Biologics (ICH Focus)
- Conflicts of Interest

- Biomedical Responsible Conduct of Research

The courses above are listed in order of priority for completion. Completion of the IRB HSR course is mandatory in order for you to be added as a sub-investigator to any clinical trial protocol. GCP is required if you are listed as a sub-investigator on any NIH funded studies.

Appendix D:
Travel Benefit Application

Fellows Request for Travel Funds from the Department of Pediatrics

FIRST YEAR FELLOWS: The Department will pay up to \$800 to attend one scientific meeting, e.g. Pediatric Academic Society of their major subspecialty society. **Attendance at >75% of Fellow's Forum meetings is required for approval. SOC documents must be up to date and travel form must be submitted 6 weeks prior to meeting.**

Name:

Name of Conference:

Dates of Conference:

E-Signature: _____ **Date:** _____
Fellowship Director

UPPER LEVEL FELLOWS: The Department will support upper level fellows up to \$800 to attend scientific conferences if fellow is presenting an abstract. **Attendance at >75% of Fellow's Forum meetings is required for approval. SOC documents must be up to date and travel form must be submitted 6 weeks prior to meeting. The abstract and acceptance letter must accompany this request.**

Name:

PGY:

Name of Conference:

Dates of Conference:

Documentation of abstract submission must accompany this form.

All SOC documents must be up to date.

E-Signature: _____ **Date:** _____
Fellowship Program Director

I have viewed the abstract and acceptance letter.

Please note:

- Additional funds will need to come from the division. **Please** plan early to book the lowest airfare. Also it is important to go to the Conference website to make your hotel accommodations.
- Grant funds should be used before department funds.
- Contact your division fellowship coordinator to obtain guidelines regarding reimbursements for specific expenses.
- Foreign travel is not included for any fellow. (Canada is the exception)

Please e-mail to Janie Nowicki at RPediatricAcademicAffairs@hscmail.mcc.virginia.edu.

Appendix E:

Scholarly Activity Training Requirements: ACGME

IV.B. Fellows' Scholarly Activities

IV.B.1. The curriculum must advance fellows' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care. (Core)

IV.B.2. Fellows should participate in scholarly activity. (Core)

IV.B.2.a) Each fellow must design and conduct a scholarly project in his or her subspecialty area with the guidance of the fellowship director and a designated mentor. (Core)

IV.B.2.b) The program must provide a scholarship oversight committee for each fellow to evaluate the fellow's progress as related to scholarly activity. (Core)

IV.B.2.c) The scholarly experience must begin in the first year and continue for the entire period of training. (Detail)

IV.B.2.c).(1) Time must be adequate to allow for the development of requisite skills, project completion, and presentation of results to a local scholarship oversight committee established for this review. (Detail)

IV.B.2.c).(1).(a) Where applicable, the process of establishing fellow scholarship oversight committees should be a collaborative effort involving other pediatric subspecialty programs in the institution. (Detail)

IV.B.3. The sponsoring institution and program should allocate adequate educational resources to facilitate fellow involvement in scholarly activities. (Detail)

Appendix F:

Requirements for Certification in Pediatric Subspecialties: ABP

<https://www.abp.org/content/general-criteria-subspecialty-certification>

1. Standard Fellowship Training Pathway

The requirement for meaningful accomplishment in research is broadened to accommodate a wider variety of scholarly activities.

- a. A clinical-only (focused clinical third-tier) pathway has not been approved. All fellows must demonstrate evidence of scholarly activity.
- b. The prerequisite for fellowship training leading to Board certification remains three years of general pediatrics training in a program accredited by the ACGME or the Royal College of Physicians and Surgeons of Canada (RCPSC).
- c. The duration of fellowship training in the standard fellowship pathway remains three years.

2. Scholarly Activities During Fellowship Training

a. Core Curriculum

All programs must include a core curriculum in scholarly activities. This curriculum should provide skills that lead to an in-depth understanding of biostatistics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical or research protocols, critical literature review, principles of evidence-based medicine, ethical principles involving clinical research, and the achievement of proficiency in teaching. The curriculum should lead to an understanding of the principles of adult learning and provide skills to participate effectively in curriculum development, delivery of information, provision of feedback to learners, and assessment of educational outcomes. Graduates should be effective in teaching both individuals and groups of learners in clinical settings, classrooms, lectures, and seminars, and also by electronic and print modalities. The specialty sub-boards will develop additional content specifications for subspecialty examinations based on the competencies related to the core curriculum in scholarly activities.

b. Scholarly Activities

In addition to the core curriculum described, each program is expected to engage fellows in specific areas of scholarly activity to allow acquisition of skills in the critical analysis of the work of others; to assimilate new knowledge, concepts, and techniques related to the field of one's practice; to formulate clear and testable questions from a body of information/data so as to be prepared to become effective subspecialists and to advance research in pediatrics; to translate ideas into written and oral forms as teachers; to serve as consultants for colleagues in other medical or scientific specialties; and to develop as leaders in their fields.

All fellows will be expected to engage in projects in which they develop hypotheses or in projects of substantive scholarly exploration and analysis that require critical thinking. Areas in which scholarly activity may be pursued include, but are not limited to: basic, clinical, or translational biomedicine; health services; quality improvement; bioethics; education; and public policy. Fellows must gather and analyze data, derive and defend conclusions, place conclusions in the context of what is known or not known about a specific area of inquiry, and present their work in oral and written form to their Scholarship Oversight Committee (see below) and elsewhere.

The Scholarship Oversight Committee in conjunction with the trainee, the mentor, and the program director will determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activities. In addition to biomedical research, examples of acceptable activities might include a critical meta-analysis of the literature, a systematic review of clinical practice with the scope and rigor of a Cochrane review, a critical analysis of public policy relevant to the subspecialty, or a curriculum development project with an assessment component. These activities require active participation by the fellow and must be mentored. The mentor(s) will be responsible for providing the ongoing feedback essential to the trainee's development.

c. Work Product of Scholarly Activity

Involvement in scholarly activities must result in the generation of a specific written "work product," which may include:

- A peer-reviewed publication in which a fellow played a substantial role
- An in-depth manuscript describing a completed project
- A thesis or dissertation written in connection with the pursuit of an advanced degree
- An extramural grant application that has either been accepted or favorably reviewed
- A progress report for projects of exceptional complexity, such as a multi-year clinical trial

d. Scholarship Oversight Committee

Review of scholarly activity will occur at the local level. Each fellow must have a Scholarship Oversight Committee. The Scholarship Oversight Committee should consist of three or more individuals, at least one of whom is based outside the subspecialty discipline; the fellowship program director may serve as a trainee's mentor and participate in the activities of the oversight committee, but should not be a standing member.

This committee will:

- Determine whether a specific activity is appropriate to meet the ABP guidelines for scholarly activity
- Determine a course of preparation beyond the core fellowship curriculum to ensure successful completion of the project
- Evaluate the fellow's progress as related to scholarly activity

- Meet with the fellow early in the training period and regularly thereafter
- Require the fellow to present/defend the project related to his/her scholarly activity
- Advise the program director on the fellow's progress and assess whether the fellow has satisfactorily met the guidelines associated with the requirement for active participation in scholarly activities

e. External Oversight

A program's ability to provide a satisfactory scholarly experience for all trainees will be evaluated periodically, as described below.

- The Pediatric Residency Review Committee (RRC) of the ACGME will be asked to review the training program's structure as it relates to the scholarly activity requirements.
- External periodic peer review of the quality of the training environment related to scholarly activity, in addition to that undertaken by the RRC, is highly recommended.

f. Responsibilities of the Training Program Director

In addition to meeting the requirements of the ACGME related to the six general competencies, the responsibilities of the training program director shall include the creation of a core curriculum in scholarly activities, the identification of a mentor, the creation of the Scholarship Oversight Committee responsible for overseeing and assessing the progress of each trainee, and the verification to the ABP of the successful completion of training.

g. Requirement for Application for the Certifying Examination

Upon completion of training, the ABP will require:

- Verification from the training program director that the clinical and scholarly skills requirements have been met
- Submission by the fellow to the ABP of a comprehensive document describing the scholarly activity that includes a description of the fellow's role in each aspect of the activity and how the scholarly activity relates to the trainee's own career development plan
- Submission by the fellow to the ABP of the actual "work product" of the scholarly activity as described above
- Signature of the fellow, program director, and members of the Scholarship Oversight Committee on the submitted documents described above

3. The current Integrated Research Pathway, Special Alternative Pathway, Subspecialty Fast-tracking Pathway, and the Dual and Combined Subspecialty Training Pathways will continue. Refer to the website for details of these pathways.

Appendix G:

Core Knowledge in Scholarly Activities: ABP

Core Knowledge in Scholarly Activities

A. Principles of Biostatistics in Research

1. Types of variables (eg, continuous, ordinal, nominal)
2. Distribution of data (eg, mean, standard deviation, skewness)
3. Hypothesis testing (eg, Type I and Type II errors, p-values, statistical power)
4. Common statistical tests (eg, ANOVA, Chi-square, nonparametric tests)
5. Measurement of association and effect (eg, correlation, relative risk, odds ratio)
6. Regression (eg, linear, logistic, survival analysis)
7. Diagnostic tests (eg, sensitivity and specificity, predictive values, disease prevalence, receiver operating characteristic (ROC) curves)
8. Systematic review and meta-analysis

B. Principles of Epidemiology and Clinical Research Design

1. Study design, performance, and analysis (internal validity)
2. Generalizability (external validity)
3. Bias and confounding
4. Causation
5. Incidence and prevalence
6. Screening
7. Cost benefit, cost effectiveness, and outcomes
8. Measurement (eg, validity, reliability)

C. Ethics in Research

1. Professionalism and misconduct in research (eg, conflicts of interest, falsification)
2. Principles of research involving human subjects
3. Principles of consent and assent

D. Quality Improvement

1. Project design (eg, models, aims, key drivers, tools, Plan-Do-Study-Act (PDSA) cycle)
2. Data and measurement (eg, outcomes, balancing measures, run charts, control charts, common cause and special cause variation)