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

Welcome to the University of Virginia Children’s Hospital! 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 that responsibility.

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 the 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,

James P. Nataro, M.D., Ph.D., M.B.A.
Benjamin Armistead Shepherd Professor and Chair
Department of Pediatrics
Office: 434 924-5093
August, 2017

As Director of Fellowship Training, let me take the opportunity to welcome you to this new and stimulating part of your career progression. We welcome you to 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 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,

Robert A. Sinkin, MD MPH
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.
Overview of Scholarship Requirements
(Selections from ACGME and American Board of Pediatrics)

Following is a detailed summary of the Departmental Scholarly Training policies and requirements. The American Board of Pediatric requirements and ACGME program requirements are in the appendix. These requirements are meant to provide form, structure, and oversight for scholarship training for all Fellows. There are four things that must be present:

1. **A departmental core curriculum for scholarly training.**
   It is the responsibility of the program directors and trainees to complete this curriculum and document participation with a training log. In addition, the use of the ABP core curriculum in scholarly activities is highly encouraged (Appendix B).

2. **The development and implementation of an individual scholarship plan under the guidance of a scholarship oversight committee (SOC).**
   The purpose of the SOC is to help a fellow develop a specific individual plan for scholarly training.
   - It is the trainee’s responsibility to work with the fellowship director and mentor(s) to develop a specific individualized scholarship plan for scholarly education and to have it approved by the SOC.
   - The SOC plan should be specific to an individual fellow and should be clear and easy to follow.

3. **Specific approaches and expected outcomes for a Scholarly Project.**
   - The project should have a hypothesis to be tested, and the fellow must gather and analyze data, derive and defend conclusions, place conclusions in the context of what is known and present their work in oral and written form to the scholarship oversight committee and others as appropriate.
   - A project proposal must be submitted to the Scholarship oversight committee for approval by June 1 of the first year of training.

4. **Work Product**
   - The Scholarly Project will ultimately result in a work product of scholarly activity with subsequent presentations, peer-reviewed publication(s), a thesis dissertation, and/or an extramural grant application.
   - The fellow will submit the work product and a comprehensive document outlining the product’s impact on career development and education to the ABP.
Summary of Scholarship Oversight Committee (SOC) Duties

The purpose of a scholarship oversight committee is to provide guidance, direction, and oversight for fellows and their scholarly training and to determine whether or not a trainee has met the ACGME and ABP mandated requirements for scholarship training.

Ultimately the scholarship oversight committee will prepare a short report at the end of a trainee’s fellowship that will be sent to the ABP. This report, in addition to the work product, provides the total documentation that a trainee fulfilled his/her scholarly training requirements.

The scholarship oversight committee will:

- Oversee and assist in the development of a specific scholarship plan for an individual fellow.

- Oversee the development of the fellow’s scholarly project and work product. It is the committee’s responsibility to insure that this project is appropriately rigorous and will help the fellow achieve their scholarly objectives. It is the committee’s responsibility to document that the fellow followed both the specific plan and the departmental core training curriculum and performed the approved project.

- Gather at least twice yearly in face-to-face meetings with the fellow to assess progress.

- Review and critique oral and written presentations of the scholarly project and work product upon completion of the project.

- As outlined in the requirements on page 12, the scholarship oversight committee will determine whether or not
  - the fellow has achieved their original plan and project
  - has met the scholarly activity goals and
  - has prepared a satisfactory scholarly work product

- 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.
Department of Pediatrics Scholarly Activities for all fellows

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. (from ABP).

- The scholarly education plan should be limited to scholarly training. Other divisional activities, conferences, and clinical training should be mentioned only as they relate to the scholarship plans. The scholarship plan is not an overview of the Fellowship Program.

- The scholarly education plan should first be designed by the fellow with significant input by the Mentor and Program Director. It should then be presented by the fellow to the full SOC where it can be critiqued and revised. This is not simply an exercise in collecting signatures from committee members; this is expected to generate a collaborative, trainee-centered curriculum.

- The Certificate Program from Public Health Sciences should be the core of the scholarly training of most trainees and will be valuable for all, regardless of area of scholarly interest.

- Ultimately, a project will be pursued by each fellow that will result in a scholarly work project. It is important to remember that the project integrates into the curriculum; the curriculum is not designed around a project.

The next page outlines the core activities required by the Department.
These are **required** core curriculum elements. The university operates under the Honor System [http://www.virginia.edu/honor/](http://www.virginia.edu/honor/) which is a key component in the 5th ACGME Core Competency of Professionalism; thus, it is the responsibility of the fellow to keep a log of their own learning activities that were attended and to provide this information to their Scholarship Oversight Committee and Program Director.

- **Research Ethics: required**

- **Departmental Fellows Forum: required**
  The forum will meet monthly and serves as part of the Departmental core curriculum. **Attendance will be monitored and >75% attendance required for eligibility for travel funds.**

**Other Academic Skills**

The University as well as the School of Medicine offer programs in writing and teaching. Check these links for updated schedules:

- **UVA’s Center for Teaching Excellence:** [http://cte.virginia.edu/](http://cte.virginia.edu/)
  These upcoming and electronically archived workshops are designed to enhance the teaching skills of those in higher education environments.

- **School of Medicine NxGen:** [https://faculty.med.virginia.edu/facultyaffairs/cmecourse/](https://faculty.med.virginia.edu/facultyaffairs/cmecourse/)
  The "Next Generation" Curriculum Faculty Development Program is designed to provide ongoing professional development and educational training support, promote skill development, and encourage educational innovations among faculty who are moving the School of Medicine into the next phase of teaching and learning in undergraduate medical education. This program will of most benefit to those trainees embarking on an education track for scholarly activity.

**GME Office Educational Calendar**

Core Competency Lectures will intermittently be announced by the GME office and can be used to satisfy ABP core activities if attendance is documented.
Individualized Plans

Options for Scholarly Activities for Individualized Plans

1. Clinical Research:
   Two levels of training are offered, you are **required** to complete either A or B below

   **A.** Certificate in Public Health Sciences for Resident and Fellow Physicians
   - Trainees pursue a “Certificate in Public Health Sciences” by choosing one of 3 tracks each comprised of four courses (three required courses plus one elective). Note: you must meet in-state residency requirements at the time you take these courses.
     
     See link below for details:
     https://med.virginia.edu/phs/education-programs-in-public-health-sciences/other-educational-programs/certificate-program/
     
     This program is outlined in more detail in Appendix D.

   **OR**

   **B.** Advanced Degree Programs
   [link]
   - MS in Clinical Research
   - MPH: The Masters of Public Health (MPH)

   Planning for funding for advanced degree programs **must** be discussed with your mentor, program director, and the departmental fellowship director immediately at the time of beginning fellowship.

   Other Training available (optional, and must be outlined with your program director and the departmental fellowship director prior to initiation.):

2. Quality Improvement Research – see Institute for Quality and Patient Safety.
   [link]

3. Education Training Track (Tomorrow’s Professor Today program):
   [link]

4. 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.
Scholarship Training Due Dates
revised June 2013

The following is a list of required documentation for each fellow’s Scholarship Training Plan. It is the responsibility of the fellow and program director to ensure timely documentation. Incomplete or late documentation will result in loss of eligibility for Department travel funds. Please send the appropriate information to Holly Sanders hs3fm@virginia.edu by the due date.

First Year Fellows

During the Fellow’s first year in the program, the following documentation must be returned to the Pediatric Fellowships office by the date stated.

□ Scholarship Oversight Committee (SOC) Roster, due December 1

□ Scholarship Training Plan and Proposed Project, due June 1

Second Year Fellows

During the Fellow’s second year in the program, the following documentation should be returned to the Pediatric Fellowships office by the date stated.

□ Fall Interim Report, due December 1

□ Spring Interim Report, due June 1

Third Year Fellows

During the Fellow’s third year in the program, the following documentation should be returned to the Pediatric Fellowships office by the date stated.

□ Fall Interim Report, due December 1

□ Final Evaluation from SOC due June 1

** Reminders for deadlines will be sent to fellows and program directors by May 1 and November 1.
University of Virginia Children’s Hospital
Pediatric Subspecialty Fellowship Programs

Scholarship Oversight Committee Membership*
(Each division has a fellow folder)

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.

January 2008
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:
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: 

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)
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:
Travel Benefits for Fellows revised June 2016

Attendance of Fellows at scientific meetings should be encouraged and supported as an integral component of preparation of trainees for a career in academic pediatrics.

To be eligible for Department support you must have attended > 75% of all Fellow’s Forum meetings, meet all deadlines and follow the institutional policies below. No funds will be provided for travel that has already occurred. Please note forms must be submitted and reviewed at least one month prior to travel.

A. FIRST YEAR FELLOWS: The Department will pay up to $800 per year for each first-year fellow to attend one scientific meeting, e.g., Pediatric Academic Society or their major subspecialty society.

B. UPPER LEVEL FELLOWS: The department will support upper level fellows attending scientific conferences if a fellow is presenting an abstract. The Department will pay up to $800 (per year).

   o To request funding, contact Holly Sanders at hs3fm@virginia.edu for application forms and details

Other details:

C. Additional funds needed must come from the division (recommended maximum of $1400 total). Early planning is expected to minimize travel costs.

D. Grant funds should be used before department funds.

E. Many societies offer travel awards. Fellows should be encouraged to apply for these awards. The department will consider matching funds for these awards for additional meetings.

F. 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.

G. Foreign travel is NOT included for any fellow. (Canada is the exception)

Travel Reimbursement

Immediately after your return, please submit your travel reimbursement documents to Holly Sanders at hs3fm@virginia.edu

A travel workbook must be submitted along with lodging and transportation receipts. The workbook and additional travel information can be located at http://test.procurement.virginia.edu/pagetravelformlist
UVa Department of Pediatrics
Fellowship Research Grants Program

Guidelines for Submission of Proposals

Deadline: ongoing
UVa Department of Pediatrics Fellow Grants-In-Aid

I. Purpose

To initiate, sustain and enhance research carried out by fellowship trainees of the ACGME-accredited subspecialty training programs of the UVa Department of Pediatrics. **Grant-in-Aid Awards are intended to support early-stage research by investigators with limited existing funding.** 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.

II. Grant Eligibility

**Grant-In-Aid Awards** are for the period of one year and are intended to support innovative child health related research projects. The Research Plan may not exceed three (3) pages. A bibliography may be appended on a separate page.

**Postdoctoral and Clinical Fellows** may submit proposals for up to $5,000. This award supports the training of researchers who have just received their doctorate or completed their clinical residency. 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. 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. **Preliminary data are not required but are strongly encouraged.** It is expected that the mentor provide oversight and assistance to fellows for the generation of the proposal.

III. Budget Guidelines
If salary support is requested, the budget justification should include personnel and their explicit role(s) in the project. Expenditures are to be listed by category (personnel, animals, subject compensation, etc) and should be rounded to the nearest $250. Funds may be used to purchase supplies, animals, support clinical sample collection and associated mailings, subject compensation and to support salary and benefits of research specialists/coordinators (at UVa only). Grant funds **may not** be used to purchase computer equipment, support faculty or trainee salaries, or fund overhead expenses. Requests to purchase non-computer equipment will be considered. US travel or meeting expenses must be specifically justified as integral to the research plan. Fellows are encouraged to include up to $500 in the budget for travel if they anticipate presenting their research at a national meeting. All expenditures must be justified in the scope of the research project. Scientific and/or budgetary overlaps with existing grants must be discussed in budget justification.

While funds should be used within the designated period, the committee will consider requests for no-cost extensions of up to one year. All requests for an extension must include a written justification at the time the scientific progress report is due (see below) and should be co-signed by the faculty mentor. **Late requests will not be considered.** In addition, all postdoctoral and clinical fellows must submit a letter acknowledging the request for an extension from the faculty mentor.

**IV. Biosketch Guidelines** – See application for format. NIH-type biosketch is required for applicant, and mentor, and collaborators.

**V. SOC Plans** – Include a copy of your broad SOC plans.

**VI. Section B – Background and Significance:** In addition to the usual background information, include a brief description of how this project relates to other past, present and future work in the mentor’s laboratory or group.

**VI. Continuation Requests and Final Reports**

**Continuation Requests:** Funding 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 co-signed 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.

**Final Reports for Grant-In-Aid Awards:** A final project summary restating the specific aims, outlining progress/pitfalls and noting
publications, presentations or grants. This summary should not exceed one page.

**Report Submissions:** Reports should be electronically submitted to Robert Sinkin, MD at ras9q@virginia.edu

**VII. Review Criteria**

1. The review committee will consider the following criteria in assessing all proposals:

   a) **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?

   b) **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?

   c) **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?

   d) **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 be accomplished? Is the work proposed appropriate to the experience level of the trainee? Promise for outside funding?

   e) **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).

2. **Review Process:** Grants will be reviewed by at least two experienced faculty members of the UVA Department of Pediatrics within 4 weeks. It is expected that the reviewers will provide constructive critiques by email and in a brief in-person review session with the trainee and mentor.

3. **Release of funds:** Upon completion of successful review and consultation sessions, funds will be released for use within four weeks.
VIII. Submission Guidelines

1. Please submit an electronic copy of the full proposal to Dr. Robert Sinkin (ras9q@virginia.edu). Please contact Dr. Sinkin for any questions.

2. Proposals must be prepared using the above guidelines using no less than 11-point fonts.

3. Funds will not be released for approved proposals in the absence of documentation of IRB and/or Animal Care Committee approval as appropriate.

4. Proposals not following the guidelines in these instructions will be administratively triaged and will not be reviewed.

IX. Investigator Agreement (attached to application) This section is required as a part of the proposal application.

Revised: 8/10/2017
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**

<table>
<thead>
<tr>
<th>NAME (Last, first, middle)</th>
<th>DEGREE(S)</th>
<th>NAME OF MENTOR</th>
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</thead>
</table>

**POSITION TITLE:**

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

**DIVISION:**

**MAILING ADDRESS:**

<table>
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<tr>
<th>TEL:</th>
<th>FAX:</th>
<th>E-MAIL ADDRESS:</th>
</tr>
</thead>
</table>

**HUMAN SUBJECTS**

- [ ] No
- [ ] Yes

If “Yes”, Exemption No. or IRB date

**VERTEBRATE ANIMALS**

- [ ] No
- [ ] Yes

If “Yes”, IACUC Approval date

**DATES OF PROPOSED PERIOD OF SUPPORT**

**COSTS REQUESTED FOR BUDGET PERIOD**

**LAY SUMMARY:**

**SIGNATURE OF APPLICANT:**

**SIGNATURE OF MENTOR:**

**LEAVE BLANK FOR UVA CHILDREN’S HOSPITAL REVIEW COMMITTEE USE ONLY**
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**

<table>
<thead>
<tr>
<th>Name and Department/Center</th>
<th>Signature</th>
<th>Role on Project</th>
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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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<td>Other Biographical Sketches <em>(Not to exceed two pages for each)</em></td>
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## Research Plan *(Maximum of 3 pages not including literature cited)*

- Specific Aims
- Background and Significance
- Research Design and Methods including statistical analysis
- Literature Cited

## Support Documents *(append all those that are applicable)*

- Human Subjects Approval
- Vertebrate Animals Approval
- Mentor’s Statement of Support
- Consultant’s Statement of Support
- Investigator Agreement *(required)*
# BUDGET

**PERSONNEL (Applicant organization only)**

<table>
<thead>
<tr>
<th>NAME</th>
<th>ROLE ON APPT.</th>
<th>TYPE EFFORT (months)</th>
<th>% EFFORT ON PROJ.</th>
<th>INST. BASE SALARY</th>
<th>SALARY REQUESTED</th>
<th>FRINGE BENEFITS</th>
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<td>Research Specialist</td>
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**SUBTOTALS**

**CONSULTANT COSTS**

**EQUIPMENT (Itemize)**

**SUPPLIES (Itemize by category do not list individual costs)**

**ANIMALS AND HUSBANDRY**

**PATIENT CARE COSTS**

- INPATIENT
- OUTPATIENT

**MICELLANEOUS (Itemize by category)**

**OTHER EXPENSES (Itemize by category)**

**SUBTOTAL DIRECT COSTS FOR BUDGET PERIOD**

**TOTAL COSTS FOR PERIOD**

**BUDGET JUSTIFICATION:**
BIOGRAPHICAL SKETCH

NAME

Mary Q. Scientist, M.D.

POSITION TITLE

Assistant Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Your Final Institution, AnotherTown, XX</td>
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</table>

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. **DO NOT EXCEED 3 PAGES.**

A. Professional Experience

Concluding with present position, list, in chronological order, previous employment and experience. Use the following format:

Dates - Dates
Your Title and location

B. Honors and Awards

List in chronological order concluding with the most recent honors and awards

C. Publications

List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application

D. Research Projects Ongoing and Completed During the Last 3 Years

Use the following format for each area of research

1. Area of Investigation
   Role:
   Source of Funds
   Project Period and Amount
   Title of Project
   Major Goals
   Overlap
Additional biosketch pages for research mentor and collaborators

OTHER SUPPORT

**Format**
**NAME OF INDIVIDUAL**

**ACTIVE/PENDING**

<table>
<thead>
<tr>
<th>Project Number (Principal Investigator)</th>
<th>Dates of Approved/Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>% Effort</td>
</tr>
<tr>
<td>Source</td>
<td>Annual Direct Costs</td>
</tr>
<tr>
<td>Title of Project (or Subproject)</td>
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</tr>
</tbody>
</table>

The major goals of this project are...

**OVERLAP (summarized for each individual)**

---

### Samples

**ANDERSON, R.R.**

**ACTIVE**

<table>
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<tr>
<th>Project Number (Principal Investigator)</th>
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<th>Source</th>
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<td>5 R01 HL 00000-07 (Baker, J.R.)</td>
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</table>

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.

**PENDING**

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<tr>
<th>Project Number (Principal Investigator)</th>
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</table>

The major goals of this project are to define biochemical properties of liposome membrane components and maximize liposome uptake into cells.
OVERLAP
There is scientific overlap between aim 2 of NSF DCB 950000 and aim 4 of the application under consideration. If both are funded, the budgets will be adjusted appropriately in conjunction with agency staff.

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: ½-3/4 page (total not to exceed 3 pages)

D. **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 A: American Board of Pediatrics: Training Requirements (Selected)

The information in this section can also be found at the ABP’s website. For complete information regarding the entirety of ABP training requirements for pediatric subspecialties, please review:

https://www.abp.org/abpwebsite/publicat/trainingrequirements.pdf

For specific information regarding ABP requirements for scholarly activity during subspecialty training, please review: https://www.abp.org/content/general-criteria-subspecialty-certification

Some of this information is abstracted below:

GENERAL CRITERIA FOR CERTIFICATION IN THE PEDIATRIC SUBSPECIALTIES

In addition to the training requirements, which are specific to each of the pediatric subspecialties, the following are required of candidates seeking certification in the pediatric subspecialties of adolescent medicine, cardiology, child abuse pediatrics, critical care medicine, developmental-behavioral pediatrics, emergency medicine, endocrinology, gastroenterology, hematology-oncology, infectious diseases, neonatal-perinatal medicine, nephrology, pulmonology, and rheumatology. Each candidate must be familiar with specific subspecialty training requirements as well as the policies stated in the current Booklet of Information.

A. Certification by the American Board of Pediatrics (ABP)

A candidate for subspecialty certification must have achieved initial certification in general pediatrics and continue to maintain general pediatrics certification in order to take a subspecialty examination. No exceptions to this policy will be granted. The requirements for Maintenance of Certification (MOC) can be found on the ABP Web site. All candidates are urged to ensure that the requirements for maintenance of certification will be met in sufficient time to allow acceptance to the subspecialty certifying examination. Under certain circumstances, individuals registered for the general pediatrics certifying examination may apply for a pediatric subspecialty certifying examination pending notification of the general pediatrics examination results. Before making application, contact the ABP for information.

B. Licensure

An applicant must have a valid (current), unrestricted license to practice medicine in one of the states, districts, or territories of the United States or a province of Canada in which he or she practices or have unrestricted privileges to practice medicine in the US Armed Forces. If licenses are held in more than one jurisdiction, all licenses held by a physician should meet this requirement. Temporary or training licenses are not acceptable.

An applicant who is practicing exclusively abroad may be exempted from this license requirement upon presentation of proof of licensure in the country in which he or she
practices. A copy of the license must be submitted. In addition, applicants who practice or plan to practice exclusively abroad must submit a letter stating this fact.

C. Verification of Training

An applicant will be asked to list the program(s) where fellowship training occurred as well as the name(s) of the program director(s). The ABP will provide a Verification of Competence Form to the program director(s) for completion. (Note: For new subspecialties, alternatives to the usual training requirements, such as practice experience, will be acceptable as criteria for admission to the examination. Candidates should refer to the specific subspecialty eligibility criteria for details.) The role of the program director in the certification process is to verify completion of training, evaluate clinical competence including professionalism, and provide evidence of the trainee's scholarly activity/research.

The ABP will provide no credit for a year in which clinical competence has been rated as unsatisfactory and will require a repeat year of training. A marginal evaluation in clinical competence indicates the need for remediation of certain portions of clinical training. A trainee may be advanced to a higher level of training under these circumstances as remediation is provided. It is expected that the next year of training will result in a satisfactory evaluation for clinical competence in order that full credit be provided for the marginal year of training. Two consecutive marginal evaluations require a repeat year of training.

An applicant must have the Verification Form(s) on file at the ABP in order to be admitted to the subspecialty examination. If an applicant's training is not verified or if the applicant receives an unsatisfactory evaluation in any of the competencies (with the exception of professionalism alone), the applicant will be required to complete an additional period of subspecialty fellowship training before reapplying. The director of the program where the additional training occurred must complete a separate Verification of Competence Form. If the unsatisfactory evaluation is in professionalism only, the applicant will be required to complete an additional period of fellowship training or, at the program director's recommendation and at the ABP's discretion; a period of observation may be required in lieu of additional training. A plan for remediation must be submitted for review and approval by the ABP.

Appeals Process: Applicants who wish to appeal evaluations must proceed through institutional due process mechanisms. The ABP is not in a position to reexamine the facts and circumstances of an individual's performance.

An applicant must satisfactorily complete all subspecialty training before the first day of the month in which the examination is administered. An applicant who’s contracted training period does not expire before the first day of the month of the examination will not be eligible for that examination, even if all formal training has been completed earlier and the remaining time is used only for leave.

No credit will be given for subspecialty training during the core general pediatric residency or a chief residency.

An applicant seeking certification in another pediatric subspecialty or a non-ABP specialty (e.g., allergy/immunology) on the basis of practice and/or training may not apply the same period of time toward fulfillment of these requirements.
D. **Scholarly Activity/Research**

The ABP requires scholarly activity/research during fellowship training, but the current requirement has been modified to accommodate a wide variety of academic scholarly activities. The **scholarly activity training requirements** (as outlined in Principles Regarding the Assessment of Scholarly Activity below) apply to all fellows beginning subspecialty training July 1, 2004, and thereafter. Those fellows who began training prior to this date must meet the requirement for meaningful accomplishment in research, which was in place at the time they entered training (as outlined in Principles Regarding the Assessment of Meaningful Accomplishment in Research below).

Fellows who began training before **July 1, 2004**, who had an interruption in training or off-cycle dates and who had a Scholarship Oversight Committee in place for at least 24 months may qualify for the requirement for Scholarly Activity. Contact the ABP for additional information regarding this exception.

The program director is responsible for notifying all fellows of the scholarly activity/research requirements necessary for certification upon entry to the subspecialty training program. Furthermore, in the description of the candidate's scholarly activity or research performance on the Verification of Competence Form, the program director must provide a description of the experiences on which the acceptable evidence of scholarly activity or research is based.

E. **Principles Regarding the Assessment of Scholarly Activity (for those who began training July 1, 2004, and thereafter)**

In addition to participating in a core curriculum in scholarly activities, 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.

In addition to biomedical research, examples of acceptable activities might include a critical meta-analysis of the literature, a systematic review of clinical practice, a critical analysis of public policy, or a curriculum development project with an assessment component. Involvement in scholarly activities must result in the generation of a specific written "work product."

Examples of work products include, but are not limited to:

- 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
Review of scholarly activity and the written work product will occur at the local level with each fellow having a Scholarship Oversight Committee responsible for overseeing and assessing the progress of each fellow and verifying to the ABP that the requirement has been met. 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 (i.e., voting) member.

Upon completion of training, the ABP will require:

- Verification from the training program director that the clinical and scholarly skills requirements have been met;
- A comprehensive document (i.e., personal statement), written by the fellow, describing the scholarly activity that includes a description of his/her role in each aspect of the activity and how the scholarly activity relates to the trainee's own career development plan. The fellow's personal statement, i.e., a comprehensive document written by the fellow, is integral to the requirement for scholarly activity. This document should be several pages in length and comment on the fellow's intended career path upon entering fellowship and reasons for choosing a specific area of scholarly activity. It should describe the scholarly activity and the fellow's role in each aspect of the activity, as well as any preparation beyond the core fellowship curriculum needed to ensure successful completion of the project. The personal statement should describe how the scholarly activity furthers the fellow's career development plan, and should reflect upon the educational value of the pursuit of the project;
- 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 both the personal statement and work product of the fellow as described above.

Details of the scholarly activity requirement have been published by the ABP in a document entitled Training Requirements for Subspecialty Certification (January 2004), which is downloadable directly from the ABP's Web site.
1. Standard Fellowship Training Pathway
   
   A. The requirement for meaningful accomplishment in research is broadened to accommodate a wider variety of scholarly activities.
   
   B. A clinical-only (focused clinical third-tier) pathway has not been approved. All fellows must demonstrate evidence of scholarly activity.
   
   C. 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).
   
   D. 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 B:

Accreditation Council for Graduate Medical Education (ACGME)
Training Requirements for Subspecialty Certification
Scholarly Activities:


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.

IV.B.2. Fellows should participate in scholarly activity.
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. The program must provide a scholarship oversight committee for each fellow to evaluate the fellow’s progress as related to scholarly activity. The scholarly experience must begin in the first year and continue for the entire period of training. 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. Where applicable, the process of establishing fellow scholarship oversight committees should be a collaborative effort involving other pediatric subspecialty programs in the institution.

IV.B.3. The sponsoring institution and program should allocate adequate educational resources to facilitate fellow involvement in scholarly activities.
APPENDIX C:
American Board of Pediatrics Scholarly Activities Core Curriculum

Content Specifications for Subspecialty Examinations may be found at: https://www.abp.org/content/content-outlines-subspecialties

Reference List:

The resources listed below will help the reader to address the content specifications for the scholarly activities section of the content outline. These resources vary in detail, and some are quite comprehensive. Most of the content specifications will be covered by several of the listed resources, so readers will want to review the style and depth of these resources to determine which will be most useful for their level of background and experience.

1. Epidemiology and Biostatistics

These two short books provide a quick overview of the basic concepts of epidemiology and biostatistics applied to clinical research. Each short chapter reviews one concept using a single (usually amusing) example. Each chapter ends with a description of misuses of the covered concepts that commonly lead to flaws in research design and analysis.

This textbook provides a concise and accessible introduction to epidemiology and the epidemiologic approach to the study of health and disease. It successfully describes the basic principles and methods of epidemiology. It is well written and uses data-based examples and illustrations to improve understanding of the main points. The book’s 20 chapters are divided into three sections: the epidemiologic approach to disease and intervention, using epidemiology to identify the causes of disease, and applying epidemiology to evaluation and policy. Recommended audiences include graduate students in public health, nursing, medicine, and veterinary medicine.

This entertaining and highly readable book covers many of the principles of epidemiology and study design in a practical and accessible way. It is filled with realistic examples that will resonate with readers. The book highlights the application of epidemiologic and biostatistical principles to the practice of medicine.

Hennekens CH, Buring, JE: Epidemiology in Medicine. New York, NY. Little Brown and
Company, 1987
This comprehensive and readable compendium of epidemiologic techniques used in medicine provides practical examples and details discussions of basic and advanced concepts. It is useful for individuals with all levels of expertise.

This easily accessible and readable book covers a broad array of clinical research designs and methodologies. It is a detailed and step-by-step approach to conceiving of research questions and designing and implementing strategies to address them. It is practical and comprehensive, and strongly recommended for anyone considering conducting clinical research.

This well-written text provides an overview and discussion of approaches used in conducting health outcomes research, and examines the scope and complexity of issues related to this topic. The book focuses on study design, measurement of outcomes, risk adjustment, and treatment. Its 10 chapters highlight key concepts in outcomes research, including demographic and psychosocial factors, patient satisfaction, comorbidity, and practical advice. Through an emphasis on providing practical ideas and insights, the book offers guidance for researchers seeking to improve their study methods and to obtain more informative data on health outcomes. Recommended audiences include clinicians and researchers.

2. This introductory text is written by two professors who have more than 50 years of teaching experience. It is filled with excellent examples of applied principles. The book is organized around three main themes: general methods of epidemiology, major study designs, and special applications (e.g., screening). These topics form the core of graduate level courses but are covered in sufficient detail to be of use to a broad audience. The book is lucid and easy to read. Teaching and Learning

Ambulatory Pediatric Association: Educational Guidelines for Pediatric Residency, found at www.ambpeds.org/egwebnew. These online guidelines present a compilation of goals, objectives, and competencies for each subspecialty that help with “what to teach.” The reader can click on eight tutorials to download short sections about medical education (available in MSWord or PowerPoint). The modules range from planning to evaluation, of which the following four are most likely to be useful:
   a. Module 1: What is a Planned Curriculum?
The principles of a structured curriculum stated in this module also apply to individual learning experiences.
   b. Module 4: Planning Learning Experiences
This module contains more detail than Module 1 about the specifics of planning.
c. Module 5: Resident Evaluation and Feedback
   The “competencies” are addressed.

d. Medical Education Terms and Concepts
   Brief definitions are provided to educate the reader about the language and concepts used in medical education.

This series of 14 very brief, readable, accessible articles covers the basics of teaching, of which the following seven modules are likely to be the most helpful.

Succinctly states the principles of adult learning theory, self-directed learning, self-efficacy, and reflective practice, with examples of application.

Cantillon P: Teaching large groups. BMJ 2003;326:436-440
This article focuses on how to engage your audience and how to maximize learning from a lecture.

Farrow R: Creating teaching materials. BMJ 2003;326:921-923
This short article adds a few useful tips to the information found in the preceding citation.

Jacques D: Teaching small groups. BMJ 2003;326:492-494
This author identifies techniques to facilitate effectively and multiple ways to structure a group of learners.

Gordon J: One to one teaching and feedback. BMJ 2003;326:543-545
Gordon identifies “do” and “don’t” bullet points for teaching, but more detailed information is available from Feedback in medical education by Ende J (see below).

This author depicts Miller’s pyramid: “Knows,” “Knows how,” “Shows how,” and “Does.”

This short article presents useful considerations about the physical environment and the psychological/educational environment.

Included in this frequently quoted article are guidelines for providing feedback and information about the dangers of not providing feedback.

The authors provide examples of the counterproductive techniques commonly used by preceptors. They also particularly note that, when preceptors correct residents’ errors, they may try so hard to avoid bruising residents’ egos that the residents do not recognize that they made an error.
Neher et al lists steps to use for efficient precepting: get a commitment, probe for supporting evidence, teach general rules, reinforce what was done right, and correct mistakes.

3. Research Ethics

This thoughtful review article articulates the complex scientific and ethical issues triggered by randomized clinical trials in pediatric populations, which are necessary to establish a standard of care that addresses the needs of children and adolescents. Public policy toward these trials has evolved and is presently more encouraging than in the past, yet this very fact places greater burdens on the Institutional Review Boards and independent review boards to provide greater scrutiny for the science and for the review process. Studies document that parents fail to grasp the notion of randomized clinical trials and therefore may make less informed choices.

This comprehensive discussion of clinical research with children grapples with the dilemma that children can most often not provide legally and ethically adequate consent to research, and yet research with children is essential to future improvements in children’s health and health care. It assesses the appropriateness of the regulations (45 CFR 46: 401-409: Subpart D – Additional Protections for Children Involved as Subjects in Research), interprets the key concept of “minimal risk,” reviews the expectations of parents and children involved in research, and examines the processes for enrolling children and the propriety of paying them and their parents. It is an essential grounding for evaluating research in the present social, ethical, and economic climate.

This timely and informative article addresses the growing practice of applying to the Office for Human Research Protections (OHRP) for approval for studies that cannot be approved by individual Institutional Review Boards without consultation with the OHRP and without convening an “Expert Panel” under section 45 CFR 46:407; such studies are not acceptable under the usual risk-benefit calculus of the regulations. The article raises ethical concerns about the expertise of panelists, the scope of information shared on the OHRP Web site, whether there is an upper limit to risk, and how the regulatory section adheres to or violates a pediatric “best practice” standard.

Manning raises issues related to informed consent for emergency research on neonates. The article explores whether a practice of “presumed consent” would reduce parental stress and
diminish the risk of over-representing vulnerable and disadvantaged families in the enrollees. It also raises issues about the nature of the setting and the nature of consent in the neonatal intensive care unit.


Santelli et al present an excellent review of the ethical and legal context of research with children, especially adolescents. The authors focus on adolescent development and the moral capacity of adolescents to consider whether to participate in research. The article surveys the types of research that need to involve adolescents, reviews the stakeholders in this process, and considers how their interests are either aligned or in possible conflict. Finally, it suggests situations in which the waiver of parental permission might be appropriate in specific research contexts.


This article explores the variety of conflicting positions taken by Institutional Review Boards (IRB) in reviewing the possible risks and benefits in pediatric research and in categorizing protocols as either “minimal risk” or some higher level of exposure. It underscores how disparate these decisions are and how guidance is needed for pediatric researchers and for the IRBs.
The Medical Center, through the Office of Graduate Medical Education and the Department of Public Health Sciences (DPHS), co-sponsor the GME Certificate in Public Health Sciences for Resident and Fellow Physicians.

Official University of Virginia Certificates are awarded upon completion of four graduate-level courses specifically designed for the program. The certificate program is supported by the Health Sciences Center administration and provides the opportunity to attend special, intense two-week courses, such as Epidemiology and Biostatistics, which are taught by DPHS faculty.

The certificate courses are Graduate School of Arts & Sciences courses that are officially recorded on university transcripts, and these courses cover the same material as regular semester-long courses on the same topics. **Attendance at all class sessions, therefore, is required. It is understood that residents and fellows will have no clinical responsibilities (including continuity clinic) during the two-week course period.**

The academic credits earned can later be applied to the two graduate degree programs offered by the Department of Public Health Sciences: Master of Public Health and Master of Science in Clinical Research. (This program is not designed for trainees already enrolled in an MPH program, and trainees already enrolled in a Master program would not be eligible for tuition coverage).

Certificate courses are offered during two-week special terms, in July/August and January of each year. For both tracks, the required courses are "Fundamentals of Epidemiology" (summer) and "Introduction to Biostatistics" (winter).

Additional electives, such as Health Policy, Quality, Ethics, Clinical Research are offered on a rotating basis.

All residents and fellows who meet eligibility requirements (see below) may apply to take courses in the Certificate Program. **Registration preference is given those trainees who commit to taking four courses and achieving the certificate. Remaining spaces for single classes will be given out, based on availability, via a lottery system.**

**ELIGIBILITY REQUIREMENTS**

Trainees cannot register without the permission of their program directors. **When program directors grant permission to take the courses, it is understood that residents and fellows will have no clinical responsibilities (including continuity clinic) during the two-week course period so that they can attend all class sessions.**

In addition, in order to be eligible for tuition payments, residents and fellows will need to meet in-state residency requirements. In general, in-state residence status is granted to those who have been living in Virginia for at least 12 months, and in addition have either filed Virginia state income tax returns or possess a Virginia driver’s license. In-state residency status is determined by the University of Virginia’s Status Office, please visit [http://www.virginia.edu/provost/vastatus/](http://www.virginia.edu/provost/vastatus/) for additional information. If a trainee is not eligible for in-state residence, they may elect to pay the difference themselves or withdraw their application. Generally, trainees on J-1 Visas do not qualify for in-state tuition.
Finally, the initial step in registration is to complete the pre-registration form and send it electronically to ROBIN GOODWIN in the GME office at rlg6j@virginia.edu (Fax 244-9438). Once the GME Office has confirmed an applicants' eligibility, they will be contacted by Tracey Brookman, Academic Program Administrator for the Dept of Public Health Sciences, to finalize official GSAS registration.

**For more information, please contact:**

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APPENDIX E.

UVA School of Medicine Core Research Resources Handbook