

Department of Pathology  
*Section on Lipid Sciences*

Summer, 2009

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***Overview of the Molecular Pathology PhD Program  
for Students Interested in Graduate School***

Thank you for your interest in the Molecular Pathology graduate program at Wake Forest University. This overview will provide some highlights and general information about our program. If this program matches your career goals, I encourage you to apply for admission.

The Molecular Pathology graduate program is a research intensive training program designed to prepare students for research careers in academia or industry. The Molecular Pathology program is housed in and administered through the Department of Pathology. We have been training PhD students since 1969 and currently have 19 students enrolled, (7 males and 12 females). Our students are as diverse in their interests as they are in their geographic origins, creating an enriching educational environment.

Our graduates settle into employment in academic institutions in traditional tenure-track faculty positions, in management or research positions at large pharmaceutical companies or in smaller biotech firms. Because of the focus on treatment and cure of chronic complex diseases like heart disease and cancer in our country, our graduates are well trained and highly sought to contribute to this national effort. Molecular Pathology graduate students are required to take course work in biochemistry, pathology, molecular biology, physiology and statistics. This provides them a breadth of knowledge necessary to perform research in basic mechanisms of complex diseases, such as heart disease and cancer, which are the main focus of our program.

Students are also required to develop their oral and written communication skills through participation in seminars, journal clubs, and in some upper level courses, class presentations or lectures. Nearly all of our students have given at least one oral presentation on their research findings at a national meeting during their tenure as a graduate student.

The successful PhD candidate is required to pass an oral qualifying exam, which tests the student's ability to write and defend an original research proposal. Most students take an average of five to six years to complete the PhD degree and graduate with two to three peer-reviewed publications to their credit.

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Paramount to our mission of training students are the many well-funded cutting-edge research projects that involve the contribution of our graduate students. Nearly all of the research projects that our students work on are funded through 34 active research grants, 23 funded through the National Institutes of Health (NIH) and 11 through private or industry grants. Of these 11 non-NIH funded grants, one is from the Juvenile Diabetes Research Foundation, one from the American Heart Association, one from the Cancer Research Institute, and two are from the American Cancer Society. Currently the faculty of the Molecular Pathology program has extramural grant support totaling \$10,045,579 per year in direct costs. Thus, students have an opportunity to collaborate on topical, highly competitive, innovative and interdisciplinary research projects for their graduate training.

All of our students are fully supported during their graduate training. This support for the 2009-2010 academic year includes: 1) a stipend of \$22,885 per year, 2) a tuition scholarship of \$30,658, 3) a health insurance supplement of \$207 per month that provides partial coverage of the health insurance costs for our students (students pay \$57 per month for their share of the premium), and an Lenovo laptop computer. For the academic year 2009-2010 this represents a total investment by the school of approximately \$53,543 for each matriculating student. We also support student travel to regional and national scientific meetings.

Winston-Salem has a relatively low cost of living index and many of our students live in houses or apartments within walking distance of the Medical Center. Graduate school is not all work, however, and when students have free time, there are many recreational, social, and cultural activities available in Winston-Salem to enrich their lives. The city has many local galleries and museums which offer the best in contemporary, historical, African-American, and scientific exhibitions. Check out the *Downtown Winston-Salem Partnership* website to see what is going on in downtown Winston-Salem (<http://www.dwsp.org/>). For weekend getaways, the city is ideally located in the center of the state, about two hours from the Blue Ridge Mountains and four hours from numerous North Carolina and South Carolina beaches. Our students from the Northeast and Midwest particularly enjoy the mild winters here!

I hope this information answers some of your questions about our graduate program. I encourage you to explore our website ([http://www1.wfubmc.edu/pathresearch/graduate\\_program/phd/](http://www1.wfubmc.edu/pathresearch/graduate_program/phd/)) to get more details on research opportunities that exist in our program. Note that after the research description for each faculty member, there is a list of relevant publications. If you have additional questions, please feel free to contact me (336-716-2145 or [jparks@wfubmc.edu](mailto:jparks@wfubmc.edu)). If you feel our program presents the right blend of opportunity, challenge, and learning environment for you, I encourage you to apply for admission before the January 15th deadline. Good luck with your continuing education.

Sincerely,

John S. Parks, PhD, Director  
Molecular Pathology graduate program  
Professor of Pathology (Lipid Sciences)