<table>
<thead>
<tr>
<th>Name of Applicant:</th>
<th>Amorette Barber, Ph.D.</th>
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<td>Institution:</td>
<td>Longwood University</td>
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<td>Signature (President or</td>
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<tr>
<td>Chief Academic Officer):</td>
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<td>Printed Name:</td>
<td>Larissa Smith, Provost and Vice President for Academic Affairs</td>
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<tr>
<td>E-mail address:</td>
<td><a href="mailto:smithlm@longwood.edu">smithlm@longwood.edu</a></td>
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<tr>
<td>Telephone:</td>
<td>434-395-2010</td>
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MISSION STATEMENT
Longwood University

Longwood University is an institution of higher learning dedicated to the development of citizen leaders who are prepared to make positive contributions to the common good of society. Building upon its strong foundation in the liberal arts and sciences, the University provides an environment in which exceptional teaching fosters student learning, scholarship, and achievement. As the only four-year public institution in south central Virginia, Longwood University serves as a catalyst for regional prosperity and advancement.

Source: Statement of Mission (http://www.longwood.edu/about/leadership/mission/)
SUMMARY of ACCOMPLISHMENTS

Dr. Amorette Barber is in her ninth year of service at Longwood University and is an Associate Professor of Biology and the Director of the Office of Student Research. Prof. Barber’s dedication to excellence in teaching, research, knowledge integration, and service make her an exceptional leader and a highly qualified candidate for the Virginia Outstanding Faculty Award. Every aspect of her career at Longwood has exemplified being a citizen leader where, according to the Longwood University Mission statement, her “exceptional teaching fosters student learning, scholarship, and achievement”. She recognized the value of a liberal arts and science education during her time as an undergraduate student and she is happy to dedicate her life to fostering student and personal achievement at a university that values the development of well-rounded students. During her career, Prof. Barber has had continued success as an educator and researcher, as evidenced by her receipt of multiple awards including the Longwood University’s Provost Award for excellence in scholarship in 2019, three university- and college-wide awards for faculty excellence in mentoring in 2015, 2016, and 2018, and the Junior Faculty Award in 2014, which is awarded annually to one junior faculty member who demonstrates excellence in teaching, research, and service. Her research accomplishments were also recognized at the state level and she received the J. Shelton Horsley Award, the highest honor bestowed by the Virginia Academy of Science for original research, in 2015. During her time at Longwood University, she has made a profound impact on her students, colleagues, and community. In addition to her strong dedication to developing innovative, research-based courses and mentoring numerous research students, she has also maintained a productive research lab where she has initiated numerous interdisciplinary collaborations within and outside of Longwood University, received multiple grants, presented at regional and national conferences, received one patent, and published papers with undergraduate authors in high-impact, peer-reviewed journals. Her dedication to exceptional teaching, appreciation of the importance of research experiences for all students, and commitment to improving her local and national community through service makes her an ideal model of citizen leadership and an outstanding faculty member.

Teaching

Prof. Barber is an enthusiastic and talented teacher-scholar, and her passion for teaching is easily recognized by her students and colleagues. Her teaching strategy stresses the integration of research in all of her classes. She feels that only when students are given the opportunity to be part of a research project do they truly learn how to become scientists and realize the true excitement of this field. Prof. Barber’s uncanny ability to incorporate research, relate difficult concepts in an easy to understand manner, and present information in an interesting context, all make her an outstanding teacher. The following provide specific examples of the integration of inquiry-based learning in selected courses:

BIOL 324- Genetics- Prof. Barber initiated an interdisciplinary collaboration with Dr. Sarah Porter, an Associate Professor in Chemistry, where Prof. Barber’s students used synthetic biology techniques to design and build their own genetically engineered bacteria to detect gun-shot residue and Dr. Porter’s students tested their limits of sensitivity in her Advanced Chemistry Lab. This project has been very successful and has led to two-peer-reviewed publications with six undergraduate authors. She also taught Genetics students about next-generation sequencing technologies by having the students analyze a part of the data sets generated by the RNA-sequencing project she is working on in her research lab. This was an excellent opportunity to introduce undergraduate students to using computational biology approaches to answer diverse biological questions. This inquiry-based approach of having the students work with real data sets from a current research project is an innovative design compared to more traditional lab approaches. Student evaluation data for this course are consistently well above the departmental, college, and university averages, with highest scores seen for “The instructor’s interest in the course motivated students to learn the material”
(average 4.89/5.0) and “The instructor expected students to learn challenging material” (average 4.83/5.0). Prof. Barber believes that her enthusiasm and balance of independence and guidance also enhance student learning. As evidence, the following are a selection of student comments she received in her Genetics classes:

-“Dr. Barber is one of the most intriguing professors I’ve had. I have learned so much from this class that I am going to pursue a career in Genetics research.”
-“Her enthusiasm is contagious. You can’t help but be excited about Genetics after taking her class. I wish all of my classes could be more like hers. She is a wonderful professor and person”
-“Dr. Barber is a wonderful teacher and her excitement motivates students to learn and succeed. She out did herself with this material and I learned so much every lecture and lab!”
-“Always very helpful and will take her time making sure students understand, but at the same time she won’t just give you the answer. She allows students to think independently, and this helped me understand the material at a deeper level compared to other classes.”
-“The experiments we did in lab were so interesting and really helped me understand what we were learning in lecture because I was able to apply to information to a scientific question.”
-“At first, I struggled with reading the scientific papers, but by the end of the semester, my ability to read this type of paper was much improved. Dr. Barber was incredibly helpful with teaching us how to read these papers, and I now feel better prepared for my other biology classes. The articles she gave us to read also made me interested in genetics as a potential field for my future career.”
-“Dr. Barber held her students to high standards, but gave lots of helpful feedback on how to improve. While she was a tough grader, she was the nicest professor I have ever had. I greatly appreciated her promptness and her honesty. She was always willing to help us learn how to improve, and I have become a better scientist because of her class.”
-“Dr. Barber knows how to explain things easily and understands her student’s pace in her class. She has great enthusiasm and I love going into her class and labs because she makes me eager to learn the material. She has made genetics a joy to learn.”

**BIOL 404- Immunology and BIOL 450- Cancer Biology** - One of Prof. Barber’s aims for these upper-level courses is to not only focus on learning the lecture material, but also on experimental design, analysis of primary literature, and application of experimental techniques. She recognizes that these skills are essential for biology majors to learn, however most of these are not a focus of other classes in the curriculum. In addition to lectures, Prof. Barber spends class time discussing how to solve “big questions” in these fields, such as designing a vaccine for malaria or targeted cancer treatments. The labs for these classes consist of a semester-long inquiry-based research labs where groups of students design and perform the experiments on topics they select. This type of lab design is unprecedented at Longwood, particularly because this means that in one semester, Prof. Barber manages up to 16 independent research projects on top of mentoring her own research students. However, Prof. Barber values incorporating research in the classroom as a way to enhance student learning so much that she was excited to help so many of her students conduct research projects. Her effort and dedication to student success showed in these classes, as evidenced in the following student comments:

-“Dr. Barber does an outstanding job teaching Immunology. She is very enthusiastic about the subject and that motivates me to pay attention and learn. She doesn’t just make us memorize facts like in other classes, but instead she has us think about the information we are presented. This made this class exciting, and I learned so much during it.”
-“Dr. Barber is ALWAYS enthusiastic about immunology! Her interest in this topic and knowledge of current directions and breakthroughs led to good questions and opportunities to investigate the subject matter further. I have never felt like a peer to a professor before, but her easy-going manner, extreme patience and understanding, and ability to allow us to guide our own projects made me feel ready for independent research during graduate school.”
“From self-designed research projects in lab to individual presentations for class - there were many opportunities to explore new material and share the information we discovered.”

“I learned so much in this class! Dr. Barber is always willing to help you and will explain the material in different ways until you understand it. It was A LOT of work, but I do feel like I learned a lot about cancer biology. Teacher gets an A+”

“Fantastic professor, she was always so clear and concise, making the class much easier to understand and enjoy. Dr. Barber was so into cancer biology, it made me want to learn it. Having a professor that loves the topic they teach makes any class awesome.”

“I have never had the opportunity to design and perform my own research project before, and I am so thankful for Dr. Barber for letting us do this in Cancer Biology! I know it was a lot of extra work for her, but she always had a smile on and would drop everything to help us if we had a question or problem. Designing our own experiment really made me see what being a scientist is like, and I can't wait for my career in research!”

**BIOL 400- Unifying Biological Principles, BIOL 488- Biology Senior Capstone, and BIOL 489-Senior Assessment and Professional Development** - Prof. Barber also has the pleasure of teaching the biology senior capstone courses. In these classes, Prof. Barber mentors students on how to write an NSF-style research proposal, evaluate and present scientific literature, prepare professional documents, and reflect on scientific ethics and the role of science in society. Despite having over 40 students in this class each semester, Prof. Barber prides herself on giving detailed, critical feedback to each student while they are learning how to construct a research proposal. This is one of Prof. Barber’s favorite classes because she feels she makes the biggest impact on her students by helping them perfect the skills that are so essential for their careers and for their future roles as citizen leaders. Prof. Barber has guided more than 200 students through this class and has mentored them on applying to post-professional schools and careers in science. Her patience and willingness to provide in-depth feedback are ideal for this class and it is clear that her students’ writing, reading, presentation, and critical thinking skills increase drastically after taking this class with her:

“Dr. Barber made the class enjoyable. She cared for us, and helped us with this class or other life issues. She truly is amazing and a Lancer and citizen leader at heart.”

“Dr. Barber is fantastic! I feel like I've really grown as a presenter and a writer during this class. She always encourages a positive learning atmosphere.”

“Dr. Barber is hands down one of the nicest professors ever! She went above and beyond with her feedback. I have never received as much or as in-depth feedback as I did in this class. It really helped me to critically evaluate myself and try to improve.”

“She is the most approachable professors I've ever had and genuinely wants to help you succeed. Her detailed comments were unlike anything I have had in another class. Even though she wasn’t my advisor, she helped me through applying to graduate school, and for that, I am forever thankful. Dr. Barber is the best professor and best role model a student could have!”

**Teaching through Research** In addition to incorporating research into her classes, she has also mentored 28 undergraduate research students in eight years. As evidence of Prof. Barber’s positive relationship with her students, all of her students have completed multiple semesters of research, with some students working with her for three years. Her students have been incredibly successful in developing research projects, analyzing data, and publishing and presenting their work at regional and national conferences. A multitude of graduates from her lab have gone on to be successful as evidenced by acceptance of eleven students into graduate school (PhD or Master’s), six students into medical school, one student into law school, and ten students into biology-related industrial positions. Prof. Barber views her research students as collaborators and her students begin to be an independent researcher right from the start of their project. As an example of this, Dr. Barber requested to bring one of her students with her to the GCAT-SEEK next-generation sequencing workshop so her student could learn this technique and network with professors from other institutions. Her dedication to her research
students is above and beyond most of her colleagues, and it is clear that Dr. Barber genuinely is invested in the success of her students. While Longwood University only requires her to put 25% of her effort on research, she clearly spends much more than 25% of her time working in the lab with her students. Through participating in Prof. Barber’s research lab, students learn how to collaborate, discuss new ideas with peers and others in the scientific research community, summarize and present their data in written and oral formats, and develop an appreciation of the excitement of scientific discovery that they will continue to foster once they leave the university setting.

**Discovery**

Prof. Barber’s main area of research focuses on enhancing immune responses to cancer. Current cancer treatments such as surgery, chemotherapy, and radiation result in adverse side effects. Therefore, the development of novel therapies that specifically target tumor cells and minimize damage to healthy cells is desirable. One option is to use cells of the immune system, specifically T cells, which kill cells that appear dangerous or foreign. To maximize tumor cell-targeting by T cells, genetic engineering is used to express receptors that enhance tumor cell recognition. These receptors, named chimeric antigen receptors (CARs), endow the T cell with a way to recognize the tumor cells and activate many cellular functions to eradicate the tumor. Encouragingly, CAR-expressing T cells have recently received FDA-approval for cancer therapy and the chimeric antigen receptor that Prof. Barber developed during graduate school is currently in Phase II clinical trials. Her current research at Longwood University focuses on studying how to enhance T cell immunotherapy for many different types of cancer through 1) creation and testing of novel CARs, 2) investigation of immune cell function, and 3) study of how various compounds (including natural products and parabens) alter immune cell function. In addition to the applications to human health, her research also has implications in enhancing our understanding of general immunology and tumor therapies.

During the past eight years at Longwood University, Prof. Barber has been extremely successful in accomplishing her research goals and since starting at Longwood she has published nine peer-reviewed research papers. Most importantly, the undergraduate research students in her lab played an integral role in the development and publishing of these studies, and she has published six peer-reviewed papers with eighteen Longwood undergraduate student co-authors. These papers are in two of the leading Immunology journals, *Molecular Immunology* and *Immunology*, and in a highly-ranked chemistry journal, *ACS Medicinal Chemistry*. One of her most recent publications described her lab’s creation of a novel CAR for tumor therapy (chPD1) and has garnered much interest among the research community, including being highlighted in “Cell Therapy News” in July 2017 and being one of the Top 5 Cited articles in *Immunology* in 2017. Furthermore, she developed a human version of this chPD1 receptor and received an international patent for the receptor and her research was featured in NPR’s “Academic Minute” in fall 2019.

In addition to publishing, Prof. Barber and her students have presented more than 37 research posters at over 22 different university, state-wide, regional, and international conferences, including the American Association for Cancer Research annual conference and her work is always well-received by her colleagues from other institutions. As proof of this, in 2017 she also was invited to give seminars on her research at the American Association for Cancer Research conference, the Cell Symposia: Cancer, Inflammation, and Immunity conference, at Kite Pharma (one of the leading biotechnology company that develops CARs for cancer therapy), the Cleveland Clinic, and an International Conference in Biotechnology in Morocco. Additionally, her students have won the “Best Student Poster Award” at two different conferences. Outside of the university, her research excellence has been recognized by her peers and in 2015 she received the BioLegend Young Investigator Award and the Sidney S. Negus Memorial Lecturer Award from the Virginia Academy of Science in 2018. She has applied to multiple funding sources, including the Longwood University Faculty Research...
Committee, Jeffress Memorial Trust, Virginia Academy of Science, GCAT Network, Dominion Foundation, American Society for Cell Biology, National Science Foundation, and National Institutes of Health and she has received approximately $273,000 of funding to support her research projects. She also has expanded her research interests to collaborate on projects with her colleagues in the Biological and Environmental Sciences and Chemistry and Physics departments at Longwood University, in the Biology Departments at Hampden-Sydney College and Randolph-Macon College, and with colleagues at the Cleveland Clinic and multiple universities in Morocco. Her lab is a pioneer for bringing new techniques to Longwood University, including starting a rodent facility, a flow cytometry facility, and contributing to the development of a bioinformatics core due to her experience and expertise in next-generation RNA-sequencing technologies. In summary, her work continues to make valuable contributions to the development of novel cancer immunotherapies and Prof. Barber’s past and current successes are proof that her lab will continue to be a leader in this field.

Knowledge Integration

Prof. Barber integrates her knowledge of research and teaching in her classes, research lab, and service efforts. Due to the way she approaches scholarship, she finds that it is difficult to separate teaching and research. As evidence of this, she incorporates research-based projects into all of her classes and believes that mentoring research students is another opportunity to teach students. She has actively searched for programs that would enhance bringing research into the classroom, and has been selected for attendance at multiple NSF-funded workshops that have taught her new techniques, including Prokaryotic Genome Annotation, Synthetic Biology, and Next-Generation RNA sequencing. As part of these workshops, she was trained in pedagogical approaches for incorporating these techniques in her classes. All of these techniques focus on the integration of multiple disciplines including biology, chemistry, engineering, mathematics and computer science. This introduces students to the interdisciplinary nature of science and teaches them to integrate their knowledge from multiple classes into one project. Prof. Barber also disseminates the approaches she learns at these workshops with her colleagues, so they can also utilize this information to enhance their classes and thus impact even more students. She has initiated and/or participated in multiple interdisciplinary projects across departments, including working with chemistry faculty on synthetic biology projects and novel anti-cancer compound discovery projects, and with mathematics and computer science faculty for next-generation sequencing analysis. Through these varied collaborations, she integrates her knowledge with that of experts from diverse fields, and this increases the impact of her scholarship even more.

Another way Prof. Barber integrates her discovery and teaching is through the initiation and leadership of a science outreach project with local high schools. In 2016 Prof. Barber initiated an interdisciplinary collaboration with Dr. Michael Wolyniak at Hampden-Sydney College. Over the past years, they have successfully applied for and received more than $76,000 to develop and implement this collaborative, interdisciplinary research-based project with local high schools. The goal of this project is to work with high school students to teach them how to use molecular biology techniques to determine microbial diversity and to correlate the presence of certain microbes with the health of the ecosystem. Undergraduates work together to develop weekly lesson plans and lead the high school research sessions. The local high school students are provided with the opportunity to develop and conduct a multi-week research project and to present their research in the form of a poster presentation at Longwood’s Student Showcase in the fall and spring. As evidence of the success of this program, in spring 2019 Prof. Barber worked with twelve Longwood students to lead research projects with over 70 Prince Edward High School students and four high school teachers. These high school students ranged in age (9-12 grade) and experience (Honors Biology, Dual Enrollment Biology, General Environmental Science, and Inclusion Environmental Science classes). This collaboration has introduced a significant research experience to many students.
at Longwood, Hampden-Sydney, and the local high school and Prof. Barber is currently working to increase participation in this science outreach program across the state in collaboration with the Virginia Academy of Science. Prof. Barber’s emphasis on conducting science outreach programs with the local community further shows that she is committed to excellence in scholarship and knowledge integration because she is dedicated to educating the next generation of scientists about the importance and excitement of research.

**Service**

Dr. Barber enthusiastically serves on multiple organizations at the university, local, state, and national levels. Her dedication to being a leader for her students, colleagues, and community is a model for the development of a well-rounded citizen leader. She is currently the Director of the Office of Student Research and she is an exemplary leader in supporting student research and inquiry through the development and implementation of programs that support undergraduate and graduate research in all disciplines. She has successfully formed new committees when she saw a need (including Longwood’s IACUC and Sigma Xi Science Research Honor Society chapter) and she maintains a leadership role in these and other committees. She has served as the Director of Longwood’s STEM-H summer research program (PRISM) and was involved in developing a new national assessment program (EvaluateUR) for summer undergraduate research programs. Longwood was selected as one of the five pilot sites for this new assessment program and she is currently working with and serving as a mentor to help over 50 institutions across the US to implement this program. In addition, she was the co-founder and serves as the chair of Longwood’s Student Showcase for Research and Creative Inquiry, an all-day university-wide student symposium that occurs at the end of each semester. In its second year the 2019 Spring Showcase was incredibly successful with approximately 600 students from every academic college presenting projects during this day.

Outside of Longwood, Prof. Barber serves as an Associate Editor for two peer-reviewed journals, *International Immunopharmacology* and *BioMedCentral Cancer*, and she also serves as an ad hoc reviewer for 23 peer-reviewed journals, including *Nature Communications*, *Cancer Research* and *Molecular Immunology*. Furthermore, she was an author for the supplemental material for the 8th edition of one of the leading Immunology textbooks, *Immunology*, by Kuby, and she is the chimeric antigen receptor therapy expert for BioPharm Insight, an online comprehensive database of biopharma companies and biomedical breakthroughs. She also actively supports the Virginia Academy of Science by serving as the Treasurer and Vice President, and she was one of the main organizers for the first Undergraduate Research Showcase at the Virginia State Capitol in January 2016 and 2017 and the Virginia Academy of Science Annual meeting hosted by Longwood in 2018. In addition, she has been invited to serve as a scientist reviewer for multiple grants for the Department of Defense Congressionally Directed Medical Research Programs. Her participation in these endeavors further demonstrates her continued commitment to enhancing scholarship at and outside of Longwood University. Overall, she views service as a way to lead her students, colleagues, and community, and she makes a significant contribution to every activity in which she is involved.

Prof. Barber is deeply committed to nurturing the development of citizen leaders. Her devotion to teaching excellence, inclusion of students in the creation of new knowledge through mentoring and research integration into her classes and the science outreach activity with local schools, and endless service activities not only impact the Longwood University students and community, but also serve as an example of how to truly achieve the joy-filled life of a citizen leader. Her scholarly work impacts many people and she goes beyond publishing in the scientific literature, but also strives to disseminate this new knowledge to the broader public. In just eight years at Longwood University, her enthusiasm and love for teaching and science have inspired her students and colleagues, and there is no doubt that she will continue to be a positive role model for many years to come. These admirable qualities and dedication to scholarship truly make Prof. Barber an outstanding faculty member.
PERSONAL STATEMENT
Dr. Amorette Barber

I remember watching a TV program when I was in middle school where scientists were debating what was going to occur when a giant meteor struck Jupiter. After being asked a question, one of the scientists jumped onto the table and exclaimed, "I don’t know the answer, but it means there is lots of COOL science left to do!" He could hardly contain his excitement over the thrill of scientific discovery and I have never forgotten the look of joy on his face at the prospect of discovering more "cool science". I believe that learning first occurs when students are motivated to learn the material because they are interested in the subject matter. Therefore, I want to pass this excitement on to my students by showing them that there will always be something thrilling to discover. To incite enthusiasm in my students, my philosophy of education focuses on actively involving the students in their learning both in the classroom and in research. I encourage the students to investigate new topics independently while also being available to guide them when needed and to apply this knowledge to a problem or a research project. Through my teaching, research, and service commitments, I aim to provide transformative research opportunities to as many students as possible and I hope to encourage the next generation by sharing the excitement of discovery with students.

Teaching Approaches
I incorporate a variety of active learning techniques into my lectures as a way to engage students. In addition to welcoming questions from students, I aim to have at least one activity that requires student participation during every class. I employ think-pair-share activities to encourage the students to start a discussion about the lecture material and I often use medical case studies to apply the course content in the context of solving a real-world problem. By relating the information from class to a situation the students can connect with helps them to not only understand and remember the concepts, but also increases their enthusiasm. I have found that including interesting examples will often spark students’ discussion during class and also helps them assemble the information into a larger framework of knowledge. I also challenge students in class through discussion of peer-reviewed primary literature and application of the lecture material to challenging problems, such as designing vaccines for emerging diseases or mining bioinformatics websites. This not only helps the students become engaged in their own learning, but also develops critical thinking skills and independence.

Another example of how I involve students in the classroom is by having them analyze data and design independent research projects. For all of my classes, I guide the students through designing their own experiment based on a question originating from the primary literature. In both introductory and upper-level classes, students work on one to two significant multi-week research projects. Assigning student projects on a topic they chose has been a very successful way to increase students’ interest because they can choose to research what excites them. An additional way I expose students to interpreting data is by introducing primary literature into lectures. I believe assigning primary literature not only increases students’ abilities to critically analyze data, but also reminds them that there are still many unanswered, interesting questions. By having the students critique primary literature and design possible future experiments, the students are more engaged and excited about the material, causing them to ask insightful questions and have an improved understanding of the topics.

I also strive to help my students see themselves as professional scientists and researchers. One approach I utilize is to make use of the pre-class time (10ish minutes before class when everyone is getting settled) to engage/teach students in an informal manner. During this time, I project a slide highlighting two scientists that discovered/studies some topic that we are going to discuss in class that day. Throughout the semester, I present on every Nobel Prize in Medicine winner related to the class and I also include more current scientists. I make sure to include a diversity of scientists from different countries, of diverse races, with disabilities, and of different sexes. On the slides, I show information including the scientist’s photo, where they
were born, at what institution they conducted their research, the years they conducted the research, and a brief description of their main discoveries. I also try to include interesting stories about the scientists to make these researchers more relatable. As an example, I share a story about the female scientist who was paralyzed from polio at the age of 4 who discovered the PPD antigen used to test for Tuberculosis exposure. Students are not tested on this information but instead it is just a conversation piece that we can discuss before class. The students enjoy learning about these scientists and this activity helps the students to picture themselves as future scientists and learn more about the seminal and current researchers in the field.

I strive to find an appropriate balance of independence and guidance in my classes. I encourage students to independently study the material and work on activities including challenging in-class questions, problem sets, and research design, but I remind them that I am available to help if they are having difficulties. One of the benefits of working at a small liberal arts institution is the small class size and personal interaction with the students, which I believe are essential for the success of this balanced approach of active learning and guidance. Overall I encourage the students to discover information on their own while not letting them become frustrated or lost in the process. This provides a sense of confidence and a feeling of success in the students which encourages them to apply themselves to new, challenging situations. The types of activities I assign and the amount of assistance I provide to the students is an ever-evolving process, and changes as I learn more about the successes and failures of these types of activities and the needs of the students.

**Teaching through Research and Service**

I absolutely enjoy working with students both in the classroom and also in the research lab. While I incorporate research into my classes, I also mentor multiple students in my research lab. I personally had a wonderful experience participating in a research project when I was an undergraduate where I not only learned numerous techniques, but also learned how to properly design experiments, analyze data, and critically think about my results and science in general. I look forward to helping students develop these skills in my research lab. Maintaining an active research program provides undergraduate students with an opportunity to learn how to find and evaluate current science literature, to learn new experimental techniques, and to alter hypotheses based on experimental results and plan new experiments. Learning how to do research is essential for biology students, therefore mentoring students in my research lab in addition to the classroom is a significant part of my teaching philosophy. I have enjoyed teaching students and maintain a successful research lab, and I view not as a separate activity, but as a different type of teaching. While I strive to be a successful immunologist, my true passion is to teach the next generation of immunologists. Through this I can make an even bigger impact in science and on society.

Furthermore, through my service, I have developed various programs and committees to help enhance involvement of students in research. These activities include sparking interest in research through engaging local high school students in science outreach programs, enabling students from all disciplines to pursue the development of their scholarship through programs I manage as the Director of the Office of Student Research, and supporting STEM education across the Commonwealth through the Virginia Academy of Science. Through this service, I can help to spread the joy of discovery and impact individuals beyond my classroom.

Overall, I aim to help students integrate the information they learn in my classes and research lab into a larger framework of knowledge through active learning techniques, providing examples of relevant context, and research experiences. I feel this will help the students retain a more thorough understanding of the knowledge so that they can better apply the skills and information in the future, and hopefully develop an interest and passion for scientific discovery. With this philosophy, my division of scholarship is blurred, and a majority of my activities, whether it is teaching, research, or service, are designed to enhance the education of my students, spark an interest in life-long discovery, and develop future citizen leaders.
ABBREVIATED CURRICULUM VITAE
Amorette Barber, Ph.D.
Associate Professor, Dept. of Biological and Environmental Sciences, Longwood University

EDUCATION
Postdoctoral Fellowship, Dartmouth Medical School, Hanover, NH (2009-2011)
Ph.D. in Molecular and Cellular Biology, Dartmouth College, Hanover, NH (2004-2009)
B.S. in Biology (Honors), University of Richmond, Richmond, VA (1999-2003)

TEACHING EXPERIENCE
Associate Professor of Biology, Longwood University, Farmville, VA (2016-Present)
Assistant Professor of Biology, Longwood University, Farmville, VA (2011-2016)
Lecturer, Dartmouth College, Hanover, NH (2011)
Adjunct Assistant Professor of Biology, Colby-Sawyer College, New London, NH (2010)

SELECTED ACADEMIC HONORS and AWARDS
Provost’s Award (2019), a university-wide award given to one faculty member to recognize outstanding scholarship, Longwood University.
Faculty Excellence in Mentoring Award (2016, 2018), a university-wide award given to faculty to recognize outstanding mentoring of student research. Longwood University.
Virginia Academy of Science J. Shelton Horsley Award (2015), the highest honor bestowed by the Virginia Academy of Science for original research, Virginia Academy of Science.
Cook-Cole College of Arts and Sciences Award for Excellence in Undergraduate Research Mentoring (2015), a college-wide award given to one junior faculty member to recognize outstanding mentoring of student research, Longwood University.
Junior Faculty Award (2014), a university-wide award given to one junior faculty member to recognize outstanding teaching, scholarship, and service, Longwood University.

SELECTED REFEREED PUBLICATIONS (out of 23 total publications)
*Underlined authors are Longwood undergraduate students.


**McQueen B, Trace K, Whitman E, Bedsworth T, Barber A.** (2016) NKG2D and CD28 receptors differentially activate mTOR to alter murine effector CD8+ T cell differentiation. *Immunology*, 147(3):305-320.


PATENTS
International Patent: PCT/US2018/052799; Filing Date: September 26, 2018; Lead Inventor: Amorette Barber; Title: PD1-specific chimeric antigen receptor as an immunotherapy
SELECTED GRANTS
Total funded while at Longwood University: **$273,232**
Served as PI/Co-PI on the following funded grants:
2019- Acquisition of a fluorescence-activated cell analyzer (FACS) to enhance undergraduate classroom and research experiences. Funded by the National Science Foundation Major Research Instrumentation (NSF-MRI) Grant. **$100,000.**
2019-2020- Educating the next-generation of STEM-Literate Citizen Leaders. Funded by the Army Educational Outreach Program. **$18,919.**
2018-2019- The Prince Edward County Environmental Molecular Biology Institute (PECEMBI). Funded by the American Society for Cell Biology Public Engagement Grant. **$31,600.**
2016-2017- The Prince Edward County Environmental Molecular Biology Institute (PECEMBI). Funded by the Dominion Higher Education Partnership Grant. **$25,000.**
2015- CLC Bio Main Workbench Software for Genomics Computer Core. Funded by the Genome Consortium for Active Teaching Grant. **$9,700.**

SELECTED PROFESSIONAL PRESENTATIONS
(out of 57 presentations, including 15 invited presentations, 23 refereed national/international conference presentations, and 19 regional/state presentations)
**Barber A.:** PD-1 targeted CAR T cells as a therapy for lymphoma and solid tumors. Invited Speaker. Translational Hematology and Oncology Grand Rounds, The Lerner Research Institute at the Cleveland Clinic, Cleveland, OH, (2017).

TEACHING and STUDENT RESEARCH ACTIVITIES
Undergraduate Courses taught at Longwood University: Biol 324 Genetics; Biol 404 Immunology; Biol 400 Unifying Biological Principles; Biol 450 Cancer Biology; Biol 250 Introduction to Genetics and Cell Biology; Biol 488 Biology Senior Capstone; Biol 489 Biology Senior Assessment and Professional Development
Undergraduate Research Students mentored at Longwood University: 30 students including 4 Senior Honors Research Students

SELECTED PUBLIC and ACADEMIC SERVICE
Director, Office of Student Research, Longwood University (2019-Present)
Director, Perspectives on Research in Science and Mathematics summer research program, Longwood University (2016-2019)
Virginia Academy of Science- Vice-President (2019-present) and Treasurer (2018-2019)
Scientist Reviewer for Department of Defense Congressionally Directed Medical Research Programs- Ovarian Cancer Research (2016-2019) and Horizon Award Immunotherapy (2016)
Associate Editor, BioMed Central Cancer (2017-present)
Associate Editor, International Immunopharmacology (2016-present)
Coordinator and Teacher for High School Scientific Research Outreach Project for Prince Edward County Environmental Molecular Biology Institute (2016-present)
Invited Ad hoc reviewer for 23 peer-reviewed journals including Nature and Cancer Research
LETTERS OF SUPPORT (EXCERPTED)

“Simply put, Dr. Amorette Barber is the most outstanding faculty member in Longwood’s recent history. Longwood faculty carry a heavy teaching load, 12 contact hours per semester. Dr. Barber is widely praised as a conscientious teacher and mentor to students, but she has also excelled in research and in service to the institution and broader scholarly community in ways unmatched by her peers. She is the most productive faculty member on campus, while also being one of the most collegial and friendly individuals I know. Dr. Barber deftly interweaves her roles as teacher, researcher, and academic citizen. Her groundbreaking research program in T-cell immunology and in developing new therapies for cancer has led to multiple presentations, publications and a patent. She has engaged undergraduates all along the way, mentoring 28 students in her research lab, many of whom have continued on to graduate school. Dr. Barber has also been instrumental in raising the profile of undergraduate research on campus. Along with a colleague in chemistry, Dr. Barber conceived of and planned a campus-wide Research Showcase day that features both undergraduate and graduate students presenting their work in public settings. The Showcase has grown to be held each semester, with the day-long event in the spring including over 600 research and performance presentations across campus. She has served as the director of our summer research experience for undergraduates and recently she became the Director of Student Research for the university. Dr. Barber has not only contributed to enriching Longwood’s campus environment, but she also works in the broader community on a number of fronts. Whether it’s bringing science experiments to high school students or serving in a leadership role for the Virginia Academy of Science or participating on a DoD grant review panel, Dr. Barber embodies Longwood’s mission to prepare citizen leaders to make positive contributions to the common good. She stands as an outstanding role model to both her colleagues and her students.” Larissa Smith, Provost and Vice President of Academic Affairs, Longwood University.

“Amorette is fast developing as a leader in my department and across campus, exhibiting strengths in teaching, scholarship, and service that serve as a model for faculty. Her high productivity, engagement with students, determination and positivity are qualities that denote faculty excellence. Amorette is a dedicated and engaging teacher, bringing active learning and authentic inquiry projects to her students. She has shown herself to be a dedicated and caring instructor who establishes pedagogical goals for her courses and recognizes and builds on successes. Her high teaching evaluations from peers and students attest to her strength in teaching. Amorette’s research program seems to accelerate with each passing semester. She excels in scholarship, and her robust research program has engaged a multitude of undergraduate students in her work. Through her formal research courses, internships, and mentoring, Amorette makes a profound impact on students outside the classroom; numerous students from her research lab have gone on to graduate and medical programs and successful STEM careers. Her numerous and successful efforts to excite students with the challenges and rewards of scientific research are not only noteworthy and commendable, but I believe reflect one of the most important and difficult endeavors in the teaching of science.” Dr. Mark Fink, Chair and Associate Professor of Biology, Longwood University.

“Amorette has consistently received excellent student and peer evaluations for teaching, including written student comments that are some of the best I have ever seen. It is obvious that she cares deeply for her students and that her students return this high regard for her. I have personally observed her teaching on multiple occasions and can attest to the high-quality experiences that she provides for her students. Amorette teaches subjects that are conceptually very difficult (Genetics, Immunology), but she is highly skilled at clearly translating the material into explanations that are easy to follow without being overly simplified. She challenges her students to achieve a deep understanding of the complex concepts, but provides the necessary scaffolding to help students to follow the step-by-step logic that is needed to arrive at higher
levels of learning. Amorette clearly loves her discipline and her enthusiasm is a motivating factor for her students. She also incorporates innovative inquiry-based research projects into her laboratory classes to help students develop critical thinking and analytical skills needed to pursue a career in science.” Dr. Mary Lehman, Professor of Biology, Longwood University.

“When I arrived at Longwood it was clear that Dr. Barber had established herself as Longwood’s most prevalent researcher in what was only her first two years. For three years we have worked together to modify parabens in order to maintain their antimicrobial properties while removing the undesirable link to breast cancer. Her expertise has shifted the project from the conventional cancer implications to an exceptional new area of altered immune response. Our collaboration has been able to support the rare medicinal chemistry program for a primarily undergraduate institution. Through our combination of fund raising, expertise, and like-minded goals we have been able to overcome many of the shortcomings that hinder such a program at other similar schools. As a result, we recently have published our seminal work on building safer paraben derivatives which included several undergraduate authors. I am astounded by Dr. Barber’s dedication, ingenuity, and innovative insights into student run research. She has single handedly energized this project by bringing light to the paraben altered immune responses. This is astounding considering she has helped with these projects while maintaining her own research. I was excited when she asked about also bringing our research into her Biology of Cancer course. The paraben story has reached admirable levels across our departments with a guided inquiry based organic teaching lab and the unique research-based project in her upper level course. Her ingenuity, dynamic teaching, and willingness to bring relevant issues into her teaching labs is yet another reason she stands to be Longwood's strongest educator. I am envious of her never failing enthusiasm for the sciences and energetic support of STEM education.” Andrew Yeagley, Associate Professor of Chemistry, Longwood University.

“Amorette is that rare combination of someone who is self-motivated and efficient as an independent investigator, and at the same time is interactive and open-minded as a desired collaborator. We have maintained a productive collaboration since she joined Longwood, and I have enjoyed watching her career flourish. While she was the best student researcher I have ever encountered in my lab, she also demonstrates a natural aptitude for teaching. I am continually impressed by the research her students present at meetings, and it is evident that she has trained them well. Her students present their work with confidence, poise, and a maturity that is not usually seen in undergraduate students. Amorette was the initiating force for much of the research in my lab and I am confident that she will continue to be a leader in the immunology field. Since starting her own research program at Longwood University, she has sent many of her research students to graduate school and we have been lucky to have some of her students join the Immunology PhD program at Dartmouth. It is evident her students are well-trained and have benefited from being trained by such an attentive and talented research mentor.” Charles Sentman, Ph.D. Advisor, Professor of Immunology, Dartmouth College.

“Amorette has been a true proponent of the teacher-scholar model of education. She mentors students on a diverse array of projects in classes, providing extensive opportunities for large student populations to gain important research experience over the course of their undergraduate curriculum. At the same time, she has established a cutting-edge, extramurally funded research program with undergraduate students that rivals that of colleagues at much larger, research-focused universities. I cannot overstate how impressive Amorette’s level of research productivity is at an institution where faculty carry annual teaching loads of 24 credit hours. As a fellow tumor immunologist, I have always been impressed by the quality of Amorette’s work, as well as that of her students, and I am genuinely amazed by the degree to which she has excelled as both a scholar and educator. In particular, her work on T cells for cancer therapy has resulted in a patent and several publications in leading academic journals. Her work has put Longwood University on the map in a field dominated by major research universities and Nobel laureates, she has been invited to present her work at international
research conferences and clinically-focused symposia. I am personally thrilled that she has also accepted an invitation to contribute a book chapter for a Melanoma – Methods and Protocols volume that I am editing and that will be published as part of the prestigious "Methods in Molecular Biology" series in 2020. It is clear that Amorette has achieved in 8 years what most faculty dream to achieve in an entire career. You will not find an individual more dedicated to her discipline, her University, and her students. Kristian Hargadon, Associate Professor and Chair of the Biology Department, Hampden-Sydney College.

"It is nearly impossible to describe the degree to which Dr. Barber was a positive influence in my life. I came to college immature and unsure of my direction in life and left self-confident and determined in my pursuit of a research career. This growth is solely due to my training under Dr. Barber. My first interaction with Dr. Barber was as a student in her Genetics class, where she was friendly, enthusiastic, and seemingly determined to bend over backwards to ensure student success. I immediately knew I wanted to join her lab and this decision became the best decision I made in my entire life. From the moment I started in her lab, she imparted her love of research and enthusiasm for learning and created a nurturing environment where I was able to learn, make mistakes, and develop into the scientist that I am today. She fosters an environment that empowers students and imparts upon them determination and the will to succeed. Her tutelage helped me discover my dream career and my passion for research and immunology, and she helped me every step of the way to ensure I was in the best possible position to achieve my dreams. My positive experience with Dr. Barber is far from the only one. Absolutely every student that encounters her is better off for the experience. She encompasses academic curiosity, support, and a positive attitude that inspires every student at Longwood University." Geoffrey Parriott, Longwood University undergraduate research student, 2018.

"I am currently a 2nd year Medical Student and I attribute my ability to compete for a medical school position to Dr. Barber’s guidance and encouragement. A consummate teacher, Dr. Barber continuously challenged me to reach beyond my self-imposed limitations; resulting in my graduating number 1 in the Biology Program at Longwood University in 2018. She instilled in me a drive to be the best I could be and this continues to be reflected in my current achievements and invitation to VCOM’s honor society. To say that Dr. Barber served as my advisor, research mentor, and professor along this journey cannot adequately capture her impact not only on my life, but on all the lives she has touched. Dr. Barber invited me to join her research team when I was a sophomore and this culminated in providing me with the greatest college experience leading to unexpected achievement in my undergraduate career. From the very beginning Dr. Barber allowed her research assistants to take ownership of our work by really making the project our own with sound planning sessions and development of project objectives. Dr. Barber taught me countless laboratory skills, data analysis, teamwork, responsibility, accountability, public speaking, and imparted upon me a detailed knowledge of immunology. The types of procedures that we did in the research lab were far more detailed compared to anything I had performed in a class. It was challenging and completely new but Dr. Barber took her time with each of her research students based on the individual student’s needs. Some research members only needed to be coached through a procedure once, while others (like myself), needed to be coached several times. She was always incredibly patient and while her passion for her research was clearly apparent to all involved, it was equally evident that she cared more about our experience and understanding of everything we were doing. I am not unique and can’t count many who are also pursuing professional careers reflective of our research experience. Her mentorship allowed me to build the confidence and skills that I needed to attend medical school. I believe Dr. Barber has shown superior accomplishments that can not only be measured by the great success of her research, but also in the success of her research students, the experiences that we all shared and our own desire to serve the public. If in my life I can have the impact on others that Dr. Barber has had on me, I will have lived a life of value.” Shane Crean, Longwood University undergraduate research student, 2018.
**ADDITIONAL DOCUMENTATION**

**Summary of Department Chair Evaluation Scores for Dr. Amorette Barber 2012-2019**

Maximum score of 3.0

Teaching accounts for 55%-65% of total score, Scholarship accounts for 30-35% of total score
Service accounts for 10-15% of total score

<table>
<thead>
<tr>
<th></th>
<th>Teaching</th>
<th>Scholarship</th>
<th>Service</th>
<th>Total</th>
<th>Ranking</th>
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<tr>
<td>2012-2013</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>Exceeds Expectations</td>
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<td>2013-2014</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>Exceeds Expectations</td>
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<tr>
<td>2014-2015</td>
<td>3.0</td>
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<td>3.0</td>
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<td>Exceeds Expectations</td>
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<tr>
<td>2015-2016</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>Exceeds Expectations</td>
</tr>
<tr>
<td>2016-2017</td>
<td>3.0</td>
<td>3.0</td>
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<td>Exceeds Expectations</td>
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<td>2017-2018</td>
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<td>3.0</td>
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<td>2.73</td>
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<td>2018-2019</td>
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<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>Exceeds Expectations</td>
</tr>
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**Summary of Teaching Evaluation Scores 2016-2019 (Selected Questions)**

1 = Hardly ever; 5 = Almost Always

Combined Evaluation Scores for all classes during a semester

<table>
<thead>
<tr>
<th>Question</th>
<th>Semester</th>
<th>Dr. Barber’s Means</th>
<th>College Means</th>
<th>Department Means</th>
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<tbody>
<tr>
<td>The instructor’s interest in the course motivated students to learn the material</td>
<td>Fall 2016</td>
<td>4.92</td>
<td>4.15</td>
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<tr>
<td></td>
<td>Spring 2017</td>
<td>4.90</td>
<td>4.19</td>
<td>4.20</td>
</tr>
<tr>
<td></td>
<td>Fall 2017</td>
<td>4.92</td>
<td>4.12</td>
<td>3.89</td>
</tr>
<tr>
<td></td>
<td>Spring 2018</td>
<td>5.00</td>
<td>4.21</td>
<td>4.26</td>
</tr>
<tr>
<td></td>
<td>Fall 2018</td>
<td>4.83</td>
<td>4.25</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>Spring 2019</td>
<td>5.00</td>
<td>4.30</td>
<td>4.20</td>
</tr>
<tr>
<td>The instructor encouraged students to ask questions and express their knowledge</td>
<td>Fall 2016</td>
<td>5.00</td>
<td>4.36</td>
<td>4.40</td>
</tr>
<tr>
<td></td>
<td>Spring 2017</td>
<td>4.91</td>
<td>4.35</td>
<td>4.26</td>
</tr>
<tr>
<td></td>
<td>Fall 2017</td>
<td>4.83</td>
<td>4.36</td>
<td>4.19</td>
</tr>
<tr>
<td></td>
<td>Spring 2018</td>
<td>4.86</td>
<td>4.35</td>
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<td></td>
<td>Fall 2018</td>
<td>5.00</td>
<td>4.37</td>
<td>4.30</td>
</tr>
<tr>
<td></td>
<td>Spring 2019</td>
<td>5.00</td>
<td>4.45</td>
<td>4.27</td>
</tr>
<tr>
<td>The instructor expected students to learn challenging or difficult material</td>
<td>Fall 2016</td>
<td>4.87</td>
<td>4.22</td>
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<tr>
<td></td>
<td>Spring 2017</td>
<td>4.70</td>
<td>4.19</td>
<td>4.16</td>
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<td></td>
<td>Fall 2017</td>
<td>4.85</td>
<td>4.23</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>Spring 2018</td>
<td>4.77</td>
<td>4.21</td>
<td>4.23</td>
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<tr>
<td></td>
<td>Fall 2018</td>
<td>4.86</td>
<td>4.41</td>
<td>4.27</td>
</tr>
<tr>
<td></td>
<td>Spring 2019</td>
<td>4.90</td>
<td>4.29</td>
<td>4.27</td>
</tr>
<tr>
<td>How much did you learn in this class? (5=Much more, 1= Much less)</td>
<td>Fall 2016</td>
<td>4.36</td>
<td>3.53</td>
<td>3.55</td>
</tr>
<tr>
<td></td>
<td>Spring 2017</td>
<td>4.20</td>
<td>3.55</td>
<td>3.52</td>
</tr>
<tr>
<td></td>
<td>Fall 2017</td>
<td>4.36</td>
<td>3.57</td>
<td>3.45</td>
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<td></td>
<td>Spring 2018</td>
<td>4.30</td>
<td>3.56</td>
<td>3.50</td>
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<td></td>
<td>Fall 2018</td>
<td>4.20</td>
<td>3.59</td>
<td>3.57</td>
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<tr>
<td></td>
<td>Spring 2019</td>
<td>4.65</td>
<td>3.60</td>
<td>3.54</td>
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</table>
Summary of Research Student Career Success Dr. Amorette Barber 2012-2018

This table summarizes post-graduate data for Longwood graduates from 2012-2018. This table demonstrates the success Amorette Barber has had mentoring students to be accepted into post-professional schools including medical school, law school, and graduate school.

<table>
<thead>
<tr>
<th>Number of Graduates</th>
<th>BS Industry Careers</th>
<th>Continued Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol and Env Sci Department</td>
<td>382</td>
<td>39%</td>
</tr>
<tr>
<td>Dr. Barber’s Research Lab</td>
<td>28</td>
<td>36%</td>
</tr>
</tbody>
</table>

Additional excerpts from letters of support

“We have been grateful for all of the assistance Amorette has provided to International Immunopharmacology. Her in-depth article reviews, more than 100 of them, have been insightful and thoughtful, and her service as the editor from more than 400 articles has positively influenced the quality of the manuscripts accepted by the journal. We have always been able to depend on her professional and expert commentary to help us “sift the wheat from the chaff” and to improve the journal’s overall quality and content. She also has served as a valuable mentor to new Associate Editors who have recently joined the journal, even though she is still a relatively new member herself.” James Talmadge, Editor-in-Chief, International Immunopharmacology and Professor at the University of Nebraska Medical Center.

“It is not often you come across a researcher who is creative, talented, intelligent, persistent, and hard-working and who also has a talent and love for teaching. However, Amorette is the perfect example of someone who possesses all of these characteristics and who uses these qualities to better the people around her. Her list of publications and presentations clearly shows that she has gained significant recognition in her field. We miss having her as a member of the Dartmouth Immunology Department, and the faculty often compare our current students to Amorette, citing her enthusiasm, intellect, tenacity, and overall passion for science.” William Green, Retired Chair and Professor of Immunology, Dartmouth College.

“Since becoming an independent researcher, Amorette has continued to improve on the qualities that I originally recognized in her, namely her creative approach to answering biological questions, a strong sense of independence, and a hearty intellect. Although she left the R1-environment, she continues to ask important questions in immunology and is very successful as evidenced by her publications in high-impact journals and presentations at national conferences. She is an outstanding example of a scientist who is able to balance excellence in research while also being an inspirational educator.” Jose Conejo-Garcia, Chair of the Immunology Department, Moffitt Cancer Center.

“Amorette is a true leader in scholarship and service. Her dedication goes beyond the classroom with her planning of the university-wide Research Symposium and I can attest to the numerous hours and all the details that need to be handled for this type of event. It takes special skill, leadership, and energy to lead this type of endeavor and she makes this enormous task seem effortless. Her dedication to successfully obtaining external funding to support her research and scholarship initiatives are above and beyond that of other faculty and is further evidence of her strong scholarship and commitment to providing students with enhanced research experiences.” Roger Byrne, Dean, Cook-Cole College of Arts and Sciences and Director of the Office of Sponsored Programs, Longwood University.

“Dr. Barber has worked very closely with the honors students in her courses and all of those students have found a mentor in Dr. Barber. I can count on her to have rigorous honors courses where students will be pushed and supported. She is prompt and organized, brilliant and caring, and frequently goes above and beyond to help students and colleagues. She is an advocate for enriching student learning through experiential work across campus. The ripple effect of Dr. Barber on campus and within the community is undeniable, and we are all better because of her
efforts.” **Jessi Znosko, Senior Director of Cormier Honors College for Citizen Scholars.**

“Together, Dr. Barber and I created the Prince Edward County Environmental Molecular Biology Institute with local high schools. She is an integral part of recruiting the college student facilitators, creating lesson plans in close consultation with the undergraduates, and helping high school students understand how to think and act like “real scientists”. Her passion and energy for this project above and beyond her activities at Longwood reflects her overall career dedication to student success. I have also worked closely with her on activities related to the Virginia Academy of Science. I am the current President-Elect of the Academy while Dr. Barber is the Vice-President (and President-Elect for 2020-21). Together, we have worked on hosting an undergraduate-focused research meeting and the annual meeting for all Virginia scientists. We have also worked together on the Academy’s Science Education committee to start a mentoring initiative in which Academy members work with K-12 classrooms around the state with to provide the experiences necessary for the students to earn the Commonwealth’s new STEM certification on their high school diplomas. Like with PECEMBI, Dr. Barber brings a level of engagement to these projects that brings fresh new perspectives and illustrates her commitment to not only her Longwood students but also the Virginia educational community as a whole.” **Michael Wolyniak, Associate Professor, Hampden-Sydney College.**

“Dr. Barber is a gifted teacher and her students absolutely adore her. She truly believes that Longwood is a place for teaching and she takes the role of mentor very seriously. She has shown through many avenues that she is dedicated to furthering student research, and not just for her own gain. Dr. Barber and I have developed an interdisciplinary synthetic biology project and she is a selfless, imaginative, dedicated, and energetic biologist and colleague. She is an admirable advocate for incorporating interdisciplinary studies in the classroom and we need more people like her to champion this important aspect of science. She values undergraduate research as an integral part of our students’ education and it shows in everything she does.” **Sarah Porter, Associate Professor of Chemistry, Longwood University.**

“Amorette is a strong believer of student research as an important part of undergraduate education. Her research mentees get to experience the full story of the scientific method from the inception of a question to publishing their findings. Amorette is one of a few colleagues with many recent publications with Longwood undergraduate student co-authors. This reflects her commitment to promote undergraduate student research and push students above and beyond to achieve the best. She is a caring professor and students speak very highly of her.” **Dr. Sujan Henkanaththegedara, Associate Professor of Biology, Longwood University.**

“The Outreach Program was a transformative experience for my high school students. They tremendously enjoyed the research & I know for a FACT that at least three of my students who had no interest in science are now talking about looking into science internship opportunities for next summer and pursuing a science track. The students took so much pride in their research and they enjoyed presenting their work at the university symposium. I am looking forward to working with Dr. Barber and her students in future semesters. She is an inspiring role model for our students.” **Torian Jones, Prince Edward County Public High School Biology Teacher.**

“During the three years I spent in Dr. Barber’s laboratory, she guided me to learn research techniques that have drastically advanced my scientific capabilities. Her compassionate nature is exemplified through her role as a research mentor and the countless hours spent consulting students. Her passion to advance scientific research through the education of undergraduate students has been a gift to me and so many others who have worked in her lab.” **Elle Richardson, Longwood University undergraduate research student, 2019.**

“Dr. Barber is a brilliant professor and she made the classroom an enjoyable and collaborative environment. She was not my assigned advisor but that did not stop her from helping me. I continually went to her for advice on classes and my career. I was unsure of my career path and she noticed my strengths in the laboratory and suggested a career in research. She spent extra time with me working on my resume and helping me during the interview process. It is truly due
to her efforts that I was able to land a job working for one of the top pharmaceutical companies in the world.”  

Hanna Ouellette, Longwood University undergraduate, 2017.

“Dr. Barber changed my life forever. Her teaching motivated me and she constantly pushed me to but not outside my limits. When I joined her research team I was given opportunities I never imagined. I was able to present our research at multiple conferences and her confidence in me enabled me to discuss my research with leading immunologists. She helped me publish my first paper, and most off all, she encouraged me to aim high in everything I did. Upon graduating, I was accepted into one of the top schools for immunology research, University of North Carolina at Chapel Hill. I thank Dr. Barber every day for providing me with so many life-altering opportunities. Without the encouragement from Dr. Barber, I would not be in the position I am today.”  

Bryan McQueen, Longwood University undergraduate research student, 2015.

“While she was a demanding professor, Dr. Barber was one of the best professors I have ever had. The way she explained topics made it easy to learn and the information stayed with me because she made us think about the applications and implications of what we were studying. She is a phenomenal professor whose impact on students is unanimously positive. Her desire for student success and her impossibly pleasant demeanor have given students another reason to love Longwood. I have learned more from her in my time at Longwood then I have from any other teacher, ever. She inspired me to earn my PhD. I still consider Dr. Barber to be one of my closest mentors and she continues to provide me with valuable career and scientific guidance.”  

Savannah Barnett, Longwood University research student undergraduate, 2015.

“Dr. Barber and I attended an RNA-sequencing workshop together and I felt honored to be invited to attend the workshop with her where I felt like a colleague rather than an undergraduate student. Dr. Barber also encouraged me to present our research at the AACR Annual Meeting. It was an amazing experience that opened my eyes to different types of research in the discipline. Dr. Barber goes above and beyond for her students and she continues to mentor me today as I pursue my research career in graduate school.”  

Sara Jacobson, Longwood University undergraduate research student, 2015.

“One of Dr. Barber’s best characteristics was her ability to judge when she should allow me independence and when to step in to help. My self-confidence increased significantly because of her mentoring. I had never dreamed I would be able to publish a scientific paper or present at a national meeting as an undergraduate, but her encouragement made all of this and so much more possible. I received a scholarship and I was accepted at my first choice for graduate school, and Dr. Barber was the biggest inspiration that helped me accomplish my goals. Her positive attitude and belief in the greatness of others drives everyone around her to succeed, and she is one of the few professors who are willing to dedicate so much time to make sure you fulfill your dreams. She is a magnificent example of a successful woman who balances her family life and her career, and she is one of my role models for how I want to develop my life.”  

Emily Whitman, Longwood University undergraduate research student, 2014.

“The knowledge I gained in Dr. Barber’s courses far exceeded other courses because she is able to relate difficult topics in a way that students can understand and develop further. The information that I learned in her courses was essential in my graduate courses and I have been able to grasp many of the concepts quicker than others due to the high standard she expected and helped us achieve. Dr. Barber has remained one of my favorite professors due to her compassion and caring personality and she continues to advise me regarding my Doctor of Physical Therapy program.”  

Bethany Law, Longwood University undergraduate, 2014.

“Due to Dr. Barber, I am pursuing a dual M.D. and Ph.D in Immunology. Dr. Barber lights up a room when she starts talking about biology and her excitement is infectious. She pushed me to want to learn and want to excel in all the aspects of the work given to me. I was given assignments that challenged me but did not break my spirits and confidence. I do not believe that I would be where I am today without such an inspirational teacher and leader.”  

Nathan Schwartz, Longwood University undergraduate, 2013.