Nomination of Dr. Jeremy Ackerman

for the

2015 CETL/BP Junior Faculty Teaching Excellence Award

This Packet Contains

1. This cover letter (1 page)
2. Letter of Nomination by Ravi Bellamkonda, Ph.D., Departmental Chair of the Wallace H Coulter Department of Biomedical Engineering at Georgia Tech/Emory
3. A reflective statement on teaching
4. A letter of support from Dr. Katherine Heilpern, MD, Department Chair of the Department of Emergency Medicine, Emory University School of Medicine
5. A letter of support from Mr. James Rains, Director of BME's Capstone Course who has worked with the candidate in the classroom
6. A letter of support from Craig Zimring, PhD, Professor, School of Architecture and Director SimTigrate Design Lab, and David Cowan, MSHS, Senior Research Scientist, School of Industrial Design and Health Systems Institute
7. A letter of support from Dr. Wendy Newstetter, Ph.D., Director of Educational Research and Innovation
8. Letters of support from students:
    a. Laura Barg-Walkow, PhD candidate, School of Psychology
    b. Pooja Mohapatra, current BME undergraduate
    c. Sam Raji, former BME undergraduate
    d. SonoFAST Team (Stephanie Camstra ME '14, Gabriela Lamas BME '14, Jorge Mena BME '14, Keller Tomassi ME '14)
    e. Binbin Chen, former BME undergraduate

Elements of the selection criteria are illustrated in the student and faculty endorsements

Georgia Tech
Wallace H. Coulter Department of Biomedical Engineering
Georgia Tech College of Engineering and Emory School of Medicine
EMORY UNIVERSITY

February 2, 2015

Dear CETL/BP Junior Faculty Teaching Excellence Award Committee:

I would like to take this opportunity to nominate Dr. Jeremy Ackerman for the 2015 CETL/BP Junior Faculty Teaching Excellence Award. While his primary appointment is in Emergency Medicine at Emory, Dr. Ackerman's is part of our joint BME program with Emory University and he holds a program appointment in our department at Georgia Tech. I am the chair of this joint Biomedical Engineering program at Georgia Institute of Technology and Emory University, as well as the President of the American Institute for Medical and Biological Engineering (AIMBE).

Dr. Ackerman continued commitment to students at Georgia Tech makes him an excellent candidate for this award. When he comes to campus, he happily and skillfully shares his unique depth and breadth of experience as a physician, an engineer, an inventor, and an entrepreneur. Despite his primary appointment as a clinician, he has an impact on our students that few can match.

Dr. Ackerman began teaching at Tech in fall of 2008 as co-instructor of a course titled "Clinical Research Practicum" with one of his colleagues from Emergency Medicine (also with a joint appointment in biomedical engineering) and a course titled "The ER of the Future" in collaboration with faculty from the College of Architecture (Dr. Craig Zimring), the College of Engineering (David Cowan, ISYE), and the College of Computing (Dr. Ellen Do). In that year he advised the first of his many senior design (now Capstone) teams. In recognition of his ongoing contributions to our department Dr. Ackerman was granted a program faculty appointment in 2012.

In spring 2010, he first offered what has become his signature course, "Clinical Observational Design Experience" also known as "CODE" and amongst our students as "the Grady class". In this course undergraduates spend 8 hours per week in the emergency rooms of local hospitals. They learn the basics of human centered design using the ERs as their laboratory. Starting with only twenty students in the first offering, Dr. Ackerman has expanded the courses to forty students each semester. In most semesters, students who have previously taken the CODE course can enroll in the "Advanced" CODE course. In this course they work with students taking the course for the first time and guide them in the clinical environment while developing project ideas further. These courses are extremely popular among and valuable to our undergraduate students. These courses provide students a depth and breadth of exposure to clinical practice that is not offered anywhere else.

Last spring, in collaboration with the Children's Healthcare of Atlanta and physicians from Emory's Department of Pediatric Division of Emergency Medicine, Dr. Ackerman developed a new course built on the model of CODE using Children's Healthcare of Atlanta at Egelston as the clinical site. In addition to providing an excellent educational experience for this group of students, Dr. Ackerman's efforts have provided the precedent and legal framework for other courses to be offered using Children's Healthcare of Atlanta as a teaching learning site for Tech students.

Dr. Ackerman's commitment to undergraduate learning has not been limited to the classroom. Dr. Ackerman has provided project ideas and served as the clinical "client" and advisor to more than twenty Capstone teams in BME in and other departments. He has assisted our Capstone course director in recruiting clinicians from emergency medicine as well as other medical specialties to contribute ideas and serve as clinical advisors.

Ravi V. Bellamkonda
Wallace H. Coulter School Chair, GRA Distinguished Scholar
Wallace H. Coulter Department of Biomedical Engineering

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He has continued to work with several of these students beyond the Capstone course. One team was awarded a grant from the Atlanta Pediatric Devices Consortium to assist their efforts developing a novel cervical spine immobilization device. Another team's project has evolved into Georgia Research Alliance funded start-up which Dr. Ackerman runs with a Tech graduate. Another team that he continues to advise was funded through Tech's Start-Up Summer program.

Dr. Ackerman's contributions to teaching have not been limited to undergraduate students. "The ER of the Future" course has developed into a course series called "Healthcare Design of the Future" offered each fall (for Fall 2014, ARCH4803 / ARCH6271 / ID6271 / BIOMED6271). Each fall the instructors select a location where healthcare is delivered for students to learn about, identify, and solve problems. This course has enjoyed involvement from graduate and undergraduate students in from the College of Architecture, the College of Computing, the College of Engineering, and the College of Sciences.

Dr. Ackerman is a member of the core faculty for our new Master of Biomedical Innovation and Design program. He contributed to the planning and design of this program, now in its second year. He teaches a required core titled "Clinical Literacy" in the first semester of the one-year program. In this course students are introduced to a variety of healthcare settings. The get hands on experience with medical devices and get to meet and shadow a variety of clinicians in the Emory Healthcare, Childrens' Healthcare of Atlanta, and Grady Healthcare systems. In addition, Dr. Ackerman has served a member of several dissertation committees for graduate students including those in BME, Mechanical Engineering, and Architecture.

In addition to his roles in the classroom and as a Capstone advisor, Dr. Ackerman adds to student's education in other ways. Dr. Ackerman frequently holds office hours in the public spaces of the IBB and the lobby of the Whittaker building. During these informal meetings he provides career advice, shares photography tips, and assists students in tuning their Capstone and business "pitches". On several occasions he has been pulled from these informal gatherings to assist freshman problem based learning groups. Throughout the year he makes himself available to students interested in clinical applications of their work.

Dr. Ackerman has shown a strong and ongoing commitment to teaching students at Georgia Tech. His skill as a teacher is demonstrated by his innovative courses, by the success of his students, and by the popularity of his courses. It has been my pleasure to see the profound impact he has had on our students and I am proud to nominate him for this award in recognition of his teaching contributions.

Please contact me with any questions.

Sincerely,

Ravi Bellamkonda, PhD
Wallace H. Coulter Chair in Biomedical Engineering
GRA Distinguished Scholar
Wallace H. Coulter Professor
Georgia Tech/Emory University Department of Biomedical Engineering

Reflective Statement on Teaching

At the end of the semester, my seven-year old daughter timidly stepped into my office at home to ask me to put her to bed. I was surrounded by notebooks and assignments from my students which all needed to be graded. I had been working at it for hours and my daughter knew that I really did not want to be interrupted, but it was time for me to get her into bed.

I supervised tooth brushing and face washing with a tablet in hand – reading through a student's assignment while my daughter chattered away about what was happening at her school tomorrow.

We completed the bedtime routine and as I was turning to leave her room she said, "Daddy, why do you teach? It seems like it's hard." This was not the usual bedtime question – and I needed a moment to reflect.

> I grew up in a family that placed a high importance on learning and teaching. Most of my family is involved in education in some way or another. My mother taught math at a community college and I remember sitting in the back of her classroom doing math problems in crayon along with her students. I recall listening to my father giving talks about medical informatics and medical educational technologies. On sick days when my grandparents would take care of me I would hear stories about their adventures in teaching in New York City public schools and my grandmother would tell me about the schools that she was assisting in developing programs in foreign language education. The message at home that was communicated but went unsaid was that teaching is important.

I turned back toward my daughter and said, "I teach because it is important," and I paused because that explanation felt inadequate.

> In medical training there is a saying "See one, do one, teach one". Hearing this simplistic saying was an epiphany. I had already spent a lot of time in school and in training and I have had many teachers and mentors. While there is very little that I do that I could do without those formal learning experiences, I have always become better by way of teaching. Teaching forces us to broaden our understanding of what we know so that we are able to answer or perhaps anticipate the questions of our learner. This in turn makes us better as students, practitioners, and teachers.
>
> This permeates my approach to teaching. My primary course, which I developed and teach, is called Clinical Observational Design Experience (CODE). In this course students learn the basics of ethnography which they apply to problem identification and

design in active clinical settings. Over time I have added teaching elements of storytelling because I realized this would involve the students more actively in their education.

In the CODE course the students "see one" via the usual lectures and reading, but they often "see one" through firsthand experiences in the ER. While I can, and do, teach them about medical procedures with in-class demonstrations and PowerPoint slides, the students who really see the procedures generally develop a much deeper knowledge.

Allowing students, particularly engineering students the opportunity to "do one" presents a bigger challenge. Sometimes medical equipment or simulators can be used to provide a hands-on experience. At other times a simple reporting or retelling of what they saw has to suffice. Teaching storytelling helps students develop skills needed to virtually "do" what they might not be able to do in reality.

Storytelling is a simple framework for students to "do one" but it becomes the basis for them to "teach one". As they work to find and understand a clinical problem, the retelling, the examples form the basis to teach others about why the problems they have identified are important. This in turn helps them explain and justify their proposed solutions.

Compared to my clinical practice, rewards of teaching are hard to measure. In medicine it is easy to see when you have really helped someone, even if it goes unsaid. In education the rewards are frequently harder to find. While I occasionally get notes from students, I get greater satisfaction of seeing former students out in the world and using their skills.

Turning back to my daughter I completed my thought, "Teaching is the most important thing I do."

EMORY UNIVERSITY SCHOOL OF MEDICINE

Department of Emergency Medicine

February 2, 2015

To the CETL/BP Junior Faculty Teaching Excellence Award Committee:

The Emory University School of Medicine Department of Emergency Medicine is proud to support the nomination of Dr. Jeremy Ackerman for the CETL/BP Junior Faculty Teaching Excellence Award. Since joining the Emory faculty in 2007, Dr. Ackerman has maintained a joint faculty appointment in the Department of Biomedical Engineering (BME) and demonstrated ongoing commitment to teaching BME students as an advisor for Capstone Design and Course Director for the Clinical Observational Design Experience (CODE).

As a Capstone advisor to over 18 undergraduate student teams (75+ students) since Spring 2008, Dr. Ackerman has promoted a collaborative process between departments, providing BME students experience working with clinicians to develop ideas for new products and medical devices, as well as an invaluable opportunity for our faculty and trainees to learn about engineering design process and intellectual property. These efforts resulted in award winning projects including 1) a disposable gel-less ultrasound probe cover which earned 2nd place in the "Capstone Design Expo", a Best Interdisciplinary Team award, a $35K award through Georgia Tech's Summer Start-Up program, and offered a position in the Zero to 510 Medical Device Accelerator, and 2) an emergency room lighting project which earned a $48K in grants from the Georgia Research Alliance and continues to involve Capstone Design students.

As Course Director for CODE since 2010 (330+ students), Dr. Ackerman has been a consummate advocate for his students ensuring they are provided with the optimal situation within our emergency departments to identify and apply their knowledge to architectural, systems, safety and device issues encountered in the clinical environment. Medical directors and nurse managers often review the student's work to aid in identifying opportunities to improve our level of service, resulting in specific process changes within the emergency department. Some examples include signage to help patients to better locate areas within the department, cost savings that could be realized by changing a linen related process, and re-design of bathrooms in our pediatric emergency room to be more child-friendly.

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In addition to his teaching within the classroom, Dr. Ackerman serves as a clinician coach for BME "Coulter College" Design competition teams. He also actively mentors student teams seeking start-up funding and individual students interested in healthcare careers, particularly MD-PhD students. His students have been recruited to assist our ongoing quality improvement and research efforts beyond the scope of their courses at Georgia Tech.

Dr. Ackerman's work with the Department of Biomedical Engineering at Georgia Tech creates valuable and actionable experiences for the BME students, as well as our faculty, fellows, residents and staff members. His commitment to excellence in teaching and application of BME to the clinical environment continues to foster a spirit of process improvement and innovation within our department. It is our pleasure to most highly recommend Dr. Jeremy Ackerman for the CETL/BP Junior Faculty Teaching Excellence Award.

Sincerely,

Katherine L. Heilpern, MD
Ada Lee and Pete Correll Professor and Chair
Department of Emergency Medicine

Executive Associate Dean
Faculty Affairs and Professional Development
Emory University School of Medicine

Georgia Tech

Wallace H. Coulter Department of Biomedical Engineering
at Georgia Tech and Emory University

EMORY UNIVERSITY

Jan. 31, 2015

To whom it may concern:

I am writing in support of Dr. Jeremy Ackerman for consideration for the CETL/BP Junior Faculty Teaching Excellence Award. I was first introduced to Dr. Ackerman shortly after I joined the faculty in as Director of Capstone in the Department of Biomedical Engineering in 2012. I quickly became aware of his reputation for being a tremendous educator, leading a course that provides students unparalleled access to the emergency room and hospital environments, as well as his prolific contribution to Capstone design teams.

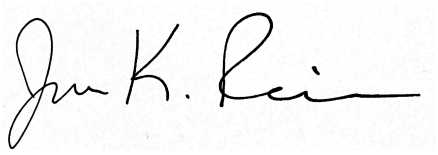
In the time that I have been here, he has directly mentored at least one project team every semester working with them to solve an unmet clinical need. He has shared his Capstone experience with colleagues and has recruited members of his clinical department and other departments to contribute project ideas and advise Capstone teams as well. Due to his strong reputation with the students, well-rounded medical and engineering knowledge, and his effort to be available to the students he frequently provides assistance to several teams each semester.

His Clinical Observational Design Experience course provides students with unique access to clinical medicine that is not available at other universities. Students are guided through problem identification and needs assessment while having extended access to the physicians, staff, and patients in busy emergency departments. This is hugely beneficial to students for building their understanding of the healthcare system and its users, and it provides them with a competency that distinguishes themselves from BME students from other universities.

For the past two years, Dr. Ackerman has served as the clinical advisor for the team representing Georgia Tech at the Coulter College competition team. In this three-day event teams of BME students from around the country gather in an educational and highly competitive design competition. For the 2013, Dr. Ackerman was the only clinical advisor who traveled to the competition with their team. Based on his efforts, the Coulter College recommended that all teams have their clinical advisor travel with them to the competition. His contribution and leadership helped our team place fourth overall this year.

In light of my experiences working with him through Capstone as well as with the Coulter College teams, it is my pleasure to wholeheartedly recommend Dr. Ackerman for this honor. Thank you for your consideration.

Sincerely,



James K. Rains, P.E.

Georgia Tech School of Architecture
College of Architecture

CETL/BP Junior Faculty Teaching Excellence Award Committee:

Re: Nomination of Dr. Jeremy Ackerman for the CETL/BP Junior Faculty Teaching Excellence Award.

To Whom It May Concern:

It is a pleasure to write this letter in support of the nomination of Dr. Jeremy Ackerman for the CETL/BP Junior Faculty Teaching Excellence Award. Jeremy is an extraordinary teacher and contributor. We have taught with him in our *Healthcare Design of the Future* course since 2008, when we focused on the "ER of the Future". This course helps students to identify opportunities for improving healthcare through research and interacting with clinicians and to design innovative systems-based solutions. The course attracts students from Architecture, Industrial Design, Health Systems Engineering, Computer Science, Psychology, Biomedical Engineering and other disciplines with a wide range of learning styles and backgrounds.

One of the goals of this class is explore and promote "trans-disciplinary" thinking. Jeremy demonstrates and teaches this very well. He is capable of developing lectures and exercises that expose our common silo thinking and engage in creative as well as technical solutions among the variety of students attracted to the class. He is capable of finding life examples as well as research to illustrate these ideas.

Despite a heavy clinical and teaching schedule Dr. Ackerman has been a valuable asset to our students as they learn to apply their skills in their fields to healthcare. Because of his clinical and engineering background, he is able to help students interpret information from clinicians, and validate the insights students realize through their own work. His enthusiastic, approachable style has made him much in demand by students. This has also made him an invaluable member of dissertation and thesis committees.

We are excited that Dr. Ackerman has been nominated for this award and enthusiastically support him. Feel free to contact us if you have any questions.

Sincerely,

Craig Zimring, PhD
Professor, School of Architecture
Director, SimTigrate Design Lab

David Cowan, MSHS
Senior Research Scientist
School of Industrial Design
Health Systems Institute

Georgia Tech College of Engineering
College of Engineering
Office of the Dean

January 30, 2015

Dear CETL/BP Junior Faculty Teaching Excellence Award Committee:

I am pleased to support the nomination of Dr. Jeremy Ackerman to receive the CETL/BP Junior Faculty Teaching Excellence Award. Dr. Ackerman began teaching the course for which he is best known, Clinical Observational Design Experience (CODE) in 2010. He had been serving as a co-instructor for a course (Clinical Research Practicum or CRP) with one of his colleagues in Emory's Department of Emergency Medicine which provided students with an immersive clinical experience but focused on conducting clinical research. As he was preparing to lead CRP, he was asked if he could instead offer a course that provided an engineering oriented clinical experience. He responded with a proposal, which has led to a course offered and filled to capacity for ten semesters. The course teaches basic ethnographic methods to students and then places the students in the ER where they are expected to apply these techniques. When I spoke with him recently about the course, he described it as an "anthropology and creative writing class disguised as a design course". Indeed the skills needed to observe, understand, and communicate problems in complex, real-life situations draw on disciplines outside of engineering. The CODE course provides students with an opportunity learn and use these skills in a challenging and often inaccessible setting. The impact of this experience can be seen in their Capstone projects and their academic and career paths after graduation. With Dr. Ackerman's direction, this course has expanded from twenty students per semester at a single clinical site to up to 60 students visiting three clinical sites and has directly impacted over three hundred students. The CODE course is, to my knowledge, unique among clinical experiences offered to undergraduates in that the students are given extended access to clinical sites and staff which allows them to identify problems themselves rather than simply studying a problem that is given to them.

Outside of the classroom Dr. Ackerman holds open office hours in the lobby of the Whittaker building. I frequently find him there meeting with his students as well as others who wander by or seek him out. Students from our Problem Based Learning curriculum, Biomedical Engineering Design, and Capstone Design have all benefitted from his knowledge and accessibility.

Dr. Ackerman's work with our students and commitment to their education make him an excellent candidate for this award.

Respectfully,

Wendy C. Newstetter

Wendy C. Newstetter PhD
Director of Educational Research and Innovation

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Georgia Institute of Technology
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January 30, 2015

To the CETL/BP Junior Faculty Teaching Excellence Award Committee:

I am writing a testimonial for Dr. Jeremy Ackerman's nomination for the CETL/BP Junior Faculty Teaching Excellence Award. As a current Ph.D. candidate working with Dr. Ackerman, I can attest to the substantial influence he has had on his students. Under Dr. Ackerman's guidance, I know that I am receiving an exceptional education and top-notch training as a human factors specialist through gaining applied experience. As his student, he has offered me countless opportunities to develop a wide range of skills as a human factors specialist and unparalleled access to healthcare environments.

Dr. Ackerman is also a powerful communicator, from which his students learn much. For example, Dr. Ackerman communicated complex medical procedures to students with varied amounts of domain knowledge in a way that promotes insight and imparts a shared vocabulary. He understands that becoming a professional in most fields involves working in interdisciplinary teams and that we must be able to communicate with everyone. Under the guidance of Dr. Ackerman, my communication skills with healthcare professionals have developed and matured beyond my expectations.

One of Dr. Ackerman's most powerful attributes is his leadership style: He leads by example. From the research he conducts, to the interventions he designs, to the courses he teaches at the Georgia Institute of Technology, Dr. Ackerman is a model educator and professional who is passionate about improving healthcare in innovative ways. He displays intangible "soft skills" of interacting with colleagues and students in a professional, respectful manner, and encourages everyone he interacts with to do the same. His excitement for the field shines through when he is working with his students, and is reflected in the students' excitement for the course.

Dr. Ackerman's primary impact at the Georgia Institute of Technology is through "Clinical Observational Design Experience"—a popular Biomedical Engineering course he developed and runs in conjunction with Emory University Department of Emergency Medicine. The course is so well-known and well-regarded at this university that I first heard of the intensive, research- and evidence-driven, hands-on course through an undergraduate in the psychology department. This course is truly innovative, pairing in-class learning with hands-on research design experiences in a clinical setting. I elected to take this course through independent study as a non-Biomedical Engineering graduate student to maximize my learning about issues in healthcare. When I took this class, I researched the redesigned triage process at Grady Memorial Hospital—with additional exposure to the emergency departments at Children's Healthcare of Atlanta and Emory University Hospital—using ethnographic and qualitative approaches. This research experience directly guided the topic for my preliminary examination and dissertation: interruptions in healthcare. I have

taken multiple courses in healthcare contexts, gaining my doctoral minor in Interdisciplinary Research and Design for Healthcare Systems; however, this course stands out to me as the most influential given the stimulating discussions and unique immersion in healthcare systems.

Additionally, Dr. Ackerman challenges his students to think critically. He does not tell students what problems we should focus on or how we should conduct research to answer questions, rather Dr. Ackerman guides us in our thinking: Have you considered X? Well, what about Y? And when presenting our work, we are required to think of the complete story: We know A, and we know B, but we don't know C (the problem), therefore we recommend D (an intervention). The idea of using storytelling when conducting research leads to compelling, thought-out approaches to solving problems. Because of this, I feel that students who work with Dr. Ackerman are encouraged to be creative in our approach to answering research questions.

Dr. Jeremy Ackerman is an ambassador for the interdisciplinary field of healthcare. I truly believe that he succeeds in his goal of educating and training his students to be good researchers and communicators, which translates to all students' post-graduation careers. Thank you for your consideration of Dr. Jeremy Ackerman for the CETL/BP Junior Faculty Teaching Excellence Award.

Sincerely,

Laura H. Barg-Walkow, M.S.
Ph.D. Candidate
School of Psychology

February 2, 2015

Dear CETL/BP Junior Faculty Teach Excellence Award Selection Committee:

I am writing in support of the nominee Dr. Jeremy Ackerman. My name is Moreed Khosravanipour, and I am an alumnus of the Georgia Tech Biomedical Engineering program. I attended one course taught by Dr. Ackerman, subsequently served as a teaching assistant for his course for three semesters, and was advised by him for my Capstone Design project. I currently work as the project manager for a Series-A funded medical device startup company and owe much of my success to the support, academic instruction, and opportunities provided to me by Dr. Ackerman.

As an undergraduate, it was an incredible opportunity to study under and work alongside a medical doctor with an experienced background in engineering design for healthcare. Despite the intensive nature of the course-- the weekly 8 hours shadowing sessions in the Emory & Grady emergency rooms in addition to weekly classes and bi-weekly projects-- I never once felt like I was putting in more than the course was giving back to me purely because of the enthusiasm and passion that Dr. Ackerman displayed for his field. His goal was to instill the same appreciation in his students.

The course itself, again due to Dr. Ackerman's acute sense of awareness and understanding, was incredibly unique. Not once throughout the entire semester were we ever assigned "actual" problems he knew the answer too; rather, Dr. Ackerman's goal for the class was to teach students how to employ the vital practical skills one needs in order to *identify* the problems themselves and communicate insights effectively. Evident in his pedagogy, Dr. Ackerman emphasized the importance of actively pursuing knowledge as opposed to passively receiving it. Typically, in the beginning weeks of the course students usually would come into class with the preconceived notion that problems in the emergency rooms arose due to faults in established medical devices, but Dr. Ackerman strived to teach his students that most problems are often rooted elsewhere. He advocates the importance of self-awareness as a stepping stone to improvement as well as the value of honest and carefully executed constructive criticism.

By all accounts, Dr. Ackerman's class was a success and an invaluable prerequisite to the world of the clinician and healthcare. Most valuably, what I learned in his course and now apply to every aspect of my problem solving in the real world is this: always listen first before declaring a solution, and ask critical questions before assuming the answer.

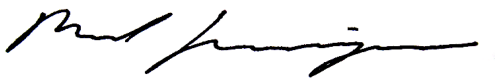
Despite my already stratospheric impression of the course, my overall experience was even more rewarding as a teaching assistant working directly with Dr. Ackerman. In context, we had frequent discussions on teaching techniques in and out of the classroom. Most fundamental to his teaching approach, he finds great joy in sharing his knowledge & practical insights with students, and at the same time enjoys learning from their fresh perspectives. In his class, students felt valued, part of a team, because their insights contributed to the growth of the other students. Dr. Ackerman certainly exhibited an inimitable passion for teaching & empowering students through transparency and voice. At the time, Dr. Ackerman's course— and I am sure this still holds true today— was the most highly sought after undergraduate elective class in Biomedical Engineering department at Georgia Tech and needless to say, for good reason!

Outside of the clinical design course, Dr. Ackerman was also a wonderful senior design mentor. Not only did he advocate for us and actively seek to put us in contact with many of his colleagues, but he continually encouraged us to dig deeper and go beyond the requirements of our Capstone Project. He believed in the work we were doing and made it known. Outside of advising our team, I believe he holds the record in the Biomedical Engineering program for most submitted and advised senior-design proposals. Even with his research and work schedule as an attending in the Emory University and Grady Memorial Hospitals, he always managed to remain flexible throughout the week to meet up with students. And beyond the realm of campus, he maintained a reputation as an admirable citizen. Each year as an undergrad, he invited me, as well as other out of state students, to his home for Thanksgiving.

I feel incredibly fortunate to have had Dr. Ackerman as an instructor. Even now, two years after graduating, Dr. Ackerman remains a valuable and active resource for me and other students. Each semester, he sets aside significant amounts of time to help any and all of his engineering students with their applications to medical school or other graduate programs, writing letters of recommendation and more. He never hesitates to make room on his calendar for any of us when we need mentoring or advice. It is rare, if not nearly impossible, to encounter a teacher so incredibly busy and yet effective in each aspect of your life which you include him.

I believe wholeheartedly that Dr. Ackerman deserves the prestigious level of recognition this award carries with it. A wonderful teacher, an astounding mentor, and a caring friend, Dr. Ackerman will remain a role model to me for years to come. And truly, I am certain that I am not the only one to feel this way about him. His humility, perhaps even more than his intelligence and charisma, is contagious.

Sincerely,



Moreed Khosravanipour

Biomedical Engineering, B.S.

Georgia Institute of Technology

Dear Award Committee,

We, as humans, are not born innately with the skillset to be a teacher, but with personality traits and talents that can help us attain these abilities as we navigate through life. There are people in the world who work tirelessly in order to refine these abilities and to craft them into specific skillsets that they will rely on for the rest of their lives. They accept a most sacred responsibility of teaching and use their unique experiences to impact the world in profound ways. I firmly believe that Dr. Jeremy Ackerman is this type of person.

It is with great enthusiasm that I write this letter to recommend Dr. Ackerman for CETL/BP Junior Faculty Teaching Excellence Award. I had the pleasure of attending his eye-opening lectures, having him as my senior design mentor and principal investigator, and shadowing him at both Emory University Hospital and Grady Memorial Hospital in Atlanta, GA.

Dr. Ackerman is a truly unique individual, and I hold him in very high regard. He is the most approachable, understanding, and impactful professor I had during my time at Georgia Tech. He is compassionate and able to effectively communicate with people of various backgrounds. His enthusiasm for teaching is contagious and motivating to those around him. His unique cross-disciplinary skills help students analyze and solve problems by thinking broadly.

I firmly believe Dr. Ackerman is an asset to the Georgia Institute of Technology and this award will be a well-deserved recognition of his achievements and I hope the committee believes as well.

Sam Raji
Biomedical Engineer
Georgia Tech Alumnus

January 31, 2015

Dear CETL/BP Junior Faculty Teaching Excellence Award Committee:
We would like to enthusiastically support the nomination of Dr. Jeremy Ackerman for the CETL/BP Junior Faculty Teaching Excellence Award. Having served as students, T.A's in his CODE class, and having him as a mentor for our senior design project, which led to our formation of a medical device company, has allowed us to work closely with Dr. Ackerman and understand his passion for teaching and his commitment to student success.

Dr. Ackerman's CODE class provides Biomedical Engineering students with unique opportunities that build upon what the students learn in the classroom. The CODE class gives the students the basic knowledge to understand problems found in a clinical environment, as well as provides them the opportunity to teach their fellow classmates about the problems that they encountered. By immersing the students in true clinical environments and getting them out of the classroom, students can identify real life problems and propose solutions that will have a real impact. It gives students the opportunity to see the potential impact of their work in the healthcare industry. Dr. Ackerman's commitment to his students is clearly seen by the fact that he continually asks for feedback to mold the class according to students' responses and interests. In addition to this, he constantly provides new experiences for students by bringing in speakers from outside of Georgia Tech to lecture on different topics, as well as getting students involved in clinical research projects with hospitals in the surrounding area.

Outside of the classroom, Dr. Ackerman continues to serve as an incredible mentor. During our last semester in Capstone Design class, Dr. Ackerman paired the team with valuable contacts that were imperative to the team's success, which included the Dean of Medicine of the South Carolina School of Medicine and the Director of Emergency Ultrasound at Grady Memorial Hospital. Dr. Ackerman also provided the team with access to key clinical resources ranging from professional training in ultrasound use, ultrasound equipment, and access to product users. The resources provided by Dr. Ackerman were critical not only during the Capstone class to understand the problem as a whole and to test our product, but also in moving forward to the creation of our medical device company and current testing of our product. Throughout this process, Dr. Ackerman has showed endless commitment to help the team find answers to our developing questions. His support was clearly illustrated in our success in the Capstone class, where our team received the Best Multidisciplinary Engineering Project award and won 2nd Place Overall Project from a field of nearly 200 Capstone Expo teams.

Being an entrepreneur himself, Dr. Ackerman encouraged us to explore this route with our senior design project. Several months after forming our own company, Dr. Ackerman has continued to meet with us to provide mentoring and always tries to find ways to help and support us through our journey. Many professors encourage students to think outside the box and do great things, but Dr. Ackerman actually provides the resources and support to do so. Due to his passion and commitment to students, as well as his efforts to support students in the journey to reach their goals, we wholeheartedly support his nomination for the CETL/BP Junior Faculty Teaching Excellence Award.

Sincerely,

The SonoFAST Team
Stephanie Camstra ME '14
Gabriela Lamas BME '14
Jorge Mena BME '14
Keller Tomassi ME '14

Dear Teaching Award Selection Committee,

My name is Binbin Chen, and I graduated from Georgia Tech with a bachelor of Biomedical Engineering in 2013. I was a previous student of Jeremy Ackerman, MD/PhD. I would like to nominate Dr. Jeremy Ackerman, the Assistant Professor at the joint Department of Biomedical Engineering Department at Georgia Tech and Emory University for 2015 CETL/BP Junior Faculty Teaching Excellence Award.

Currently I am a student at Stanford University School of Medicine pursuing joint MD and PhD degrees in Bioinformatics. The mentorship from Dr. Ackerman largely shaped my decision to choose this educational pathway to become future a physician scientist. Taking his class and interacting with him helped me explore career life of a MD/PhD. He showed me a physician scientist can bridge the lab research and the clinic, and more importantly a scientist can have a balanced life of both career and family.

I took his Clinical Observation Design class (BMED 4813) during my junior year. This class is the most popular class elective class among Biomedical Engineering students. With Dr. Ackerman's help, students like me spent eight hours every week in the emergency rooms in the Grady Hospital and Emory Hospital Midtown to observe the clinical operations and to assist clinical studies. He led insightful discussions in the classroom to help us digest our observation and to come up a better design for the hospital set-up. One day, in my medical school pulmonary pathology class, the professor asked us why American buffalos are easy to kill. I remembered vividly Dr. Ackerman mentioned in my class that different from humans, buffalos have left and right lungs connected. "Because buffalos virtually only have one lung, one shot in their lungs is enough to stop their breath," I answered. My pathology professor gave me a fist pump for my answered.

As an engineer with clinical insights, Dr. Ackerman was my go-to person when I need advice for my medical design classes. During my junior year, my team wanted to tackle issues in blood draw and IV infusions. After providing us a lot of suggestions, Dr. Ackerman brought a related device called AccuVein for our reference. With Dr. Ackerman's help, our design to reduce injection pain won the Georgia Tech InVenture Prototype Award in 2012 to further pursue our prototyping.

Outside of classroom, Dr. Ackerman and I discussed more than science and medicine. We share common interest in photography, and often exchanged our photography works. He gave me not only artistic feedbacks, but also technical tips. He introduced me to the importance of using flashlight appropriately and the mechanism behind flashlight focusing. He cares about students' achievements as well as their wellness.

Overall, Dr. Ackerman's talent and passion in teaching makes him a perfect candidate for this award. Please consider my input, and feel free to contact me for further information.

Yours sincerely,

Binbin Chen

MD/PhD Candidate

Stanford School of Medicine

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