



Improving Health Through Medical Physics

# Women's Professional Subcommittee

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AAPM Newsletter — Volume 43 No. 2 — March | April 2018



*Participants of CUWIP 2018 at University of Kansas (photo used with permission of the organizers)*

## It's Our Year!!

While many in the news media were discussing the likes of Harvey Weinstein, Matt Lauer, and others, on the brisk evening of January 12, 2018, I was having the time of my life. That night, I had the distinct privilege of addressing a room full of the most enthusiastic young physicists in my district and notably, they were all young women.

I was the keynote speaker for the opening night of the Conference for Undergraduate Women in Physics (CUWiP) at the home of the Jayhawks, University of Kansas. It was a triple honor for me to speak at this event since my husband's family lives within minutes of the scenic campus, I was married less than 5 blocks from the conference venue, and I am a fierce proponent for encouraging young women to pursue physics as a field of study. To say I was stoked to be there would have been an understatement. To top it all off, when I asked the audience who knew about Medical Physics, expecting most not to know much, the whole room exploded with hands raised. The word is out and I have a feeling we're going to experience a flood of more women physicists trying our field out. It truly felt cathartic if not exhilarating to be in a room discussing our gender's capabilities and encouraging our students to follow boldly in our path. And importantly, it was refreshing to have the event coordinated by a male Physics department chair who is also an advocate for increasing the numbers of women in STEM. Having allies in diversity and inclusion efforts makes the work worthwhile, and the University of Kansas has a dynamic physics chair in **Dr. Hume Feldman**.

CUWiP is a massive endeavor sponsored by the American Physical Society (APS) that includes a series of conferences occurring simultaneously on a weekend in January each year at several universities <sup>(1)</sup>. It began in 2006 at the University of Southern California. Each campus invites an array of physicist speakers and organizations aimed at giving the university and high school student participants a professional physics conference experience. The conferences include workshops that help the students navigate choosing which type of physics to pursue in graduate school, how to overcome "impostor syndrome" as well as which jobs are available for each chosen career path.



*Dr. Julianne Pollard-Larkin, of MD Anderson Cancer Center, speaking to participants at the University of Kansas CUWiP conference on January 12, 2018 (photo used with permission of the organizers)*

Also, the keynote speakers selected represent the best women physicists such as Harvard's keynote speaker from last year, **Dr. Nergis Mavalvala**, an astrophysics professor at MIT and a 2010 recipient of the MacArthur Genius Award. Her claim to fame was being part of the Laser Interferometer Gravitational-wave Observatory (LIGO) that first detected gravitational waves produced by colliding black holes.

If you have yet to go to a CUWiP or other conference for women physicists and trainees, make it a goal for 2018. Oftentimes we get caught up in our day-to-day existence and can forget how far we have come as a gender and a society, but being in such an encouraging space where your purpose is celebrated can be life-altering. And please don't forget the trivia games we play as a group on some nights during CUWiP and the twilight observatory visits that are as educational as they are entertaining.

This conference series is a natural volunteer opportunity for interested professional and academic physicists. If you have wanted to volunteer and give back, please look for more information at the APS website and get details about next year's events in your region. Also, spread the word to students who may be interested in attending.

Our goal as the Women's Professional Subcommittee is to ensure that we are in support of the career development of women medical physicists, but also that we pave the way for the next generation of professional women medical physicists. You may have noticed that many of our current medical physics academic programs are close to having gender parity. Meanwhile, pure physics programs have difficulty surpassing roughly 20% women participation rates. We are part of a unique physics specialty that is moving quickly towards equal participation of women and men. I believe this is due at least in part to the fact that our field requires an interest in medicine, which is equally appealing to both genders compared to pure physics. Also, please note that "for the first time ever, more women than men enrolled in medical school" as reported in Fortune magazine this past December <sup>(2)</sup>.

Suffice it to say that the writing is on the wall: this may be our best year yet — and it's only March! Even as we deal with defining how to move forward in the era of #MeToo, women and men are mobilizing, running for office, teaching and mentoring in order to help advance us as a nation. Realize that as a woman medical physicist, you earn at least 35% more than a similar woman in a non-STEM field, you suffer less from a gender wage gap than your non-STEM peers, and you earn 40 percent more than men with non-STEM jobs <sup>(3)</sup>. Also, please remember, even if you are the lone woman physicist at your center, you are not truly alone. You have a healthy supply of sister medical physicists working alongside you in centers nationwide and our daughters are waiting in the wings too!

#### References:

1. Conferences for Undergraduate Women in Physics (CUWiP)
2. For the First Time Ever, More Women than Men Enrolled in Med School This Year, Fortune, 2017
3. Women in STEM: 2017 Update United States Department of Commerce