Transcript of the August 17, 2020 SPR Webinar:

"Gender Equity in the Scientific Workforce: What is the Current State of Pediatrics?"

Featuring: Elena Fuentes-Afflick, Stephen Daniels, Nancy Spector

The following text is an edited transcript of a webinar sponsored by the Society of Pediatric Research (SPR). Originally an invited science submission to the Pediatric Academic Societies (PAS) meeting that was cancelled due to the pandemic, this webinar was held on August 17, 2020 and was both particularly well attended and highly rated by the audience. We are providing its text for SPR membership as we believe it helps establish a blueprint for our work to promote equity in the pediatric scientific workforce. It is being used to inform ongoing work by the SPR Diversity, Equity, and Inclusion workgroup over the next year.

Dr. Stephanie Duggins Davis (SDD), SPR President:

We are pleased to welcome you today to our SPR webinar, entitled: *Gender Equity in the Scientific Workforce: What Is the Current State of Pediatrics?* Before introducing our esteemed speakers, I would like to thank Dr. Tamara Simon who originally prepared this session for PAS 2020. We have a great panel today!

First, I would like to introduce Dr. Elena Fuentes-Afflick (EFA), who is Professor of Pediatrics, Chief of Pediatrics at the Zuckerberg San Francisco General Hospital, Vice Chair of Pediatrics, and Vice Dean for Academic Affairs and Faculty Development at the University of California, San Francisco (UCSF). She received her MD from the University of Michigan. She completed her residency, chief residency, MPH, and Fellowship in Health Policy at the UCSF and has remained on faculty. She is a member of the National Academy of Medicine and recently elected to the American Academy of Arts and Sciences. She has been very active in SPR, American Pediatric Society, and many other professional societies. Her clinical work has focused on underserved Latino children in the San Francisco area and her academic focus has been on health care disparities. Diversity, equity, and inclusion are central to her academic work. She has served as a research and career mentor for countless early career clinicians and scientists at UCSF and other institutions. Through national pediatric societies she has contributed greatly to efforts to enhance diversity and equity among the next generation of pediatric leaders.

Our second speaker is Dr. Stephen R. Daniels (SRD). Dr. Daniels is Professor and Chair of Pediatrics at the University of Colorado School of Medicine, Pediatrician-in-Chief, and the L. Joseph Butterfield Chair in

Pediatrics at Children's Hospital Colorado. He completed his MD at the University of Chicago. He completed his Pediatrics residency and Cardiology Fellowship at Cincinnati Children's Hospital. He also received a MPH from Harvard and a PhD from UNC Chapel Hill. After completing his fellowship, he remained on faculty at Cincinnati Children's until 2006 and then moved to Colorado to serve as Chair of Pediatrics. He is a world-renowned National Institutes of Health (NIH) funded pediatric cardiologist with well over 500 publications. He currently serves as Principal Investigator (PI) for the Colorado Children's K12 Child Health Research Career Development Award and is strongly committed to physician scientist development. He is also a leading member of several prestigious professional societies, having previously served as President of Association of Medical School Pediatric Department Chairs, and as a member of the Federation of Pediatric Organizations Gender and Generations Working Group, having published in the area of academic gender equity.

Our third speaker is Dr. Nancy Spector (NS). Dr. Spector is Professor of Pediatrics, Associate Dean for Faculty Development and Executive Director of the Executive Leadership and Academic Medicine (ELAM) program, at Drexel University College of Medicine. She received her MD from the University of Massachusetts. She completed her pediatrics residency, chief residency and fellowship in general academic pediatrics at St. Christopher's Hospital for Children. Her work has focused on the development of educational programs to promote and enhance leadership skills, faculty and professional development, mentoring, sponsorship, and gender equity in academic medicine. She has received several awards recognizing her dedication to advancing women in science and medicine and has participated in several national efforts to address gender equity for all levels of positions. In addition to institutional level initiatives at Drexel University, she has contributed to several important publications addressing gender equity in academic medicine, including the Blueprint for Action Visioning Summit on the future of the Workforce in Pediatrics, published in 2015. In 2016, she was named Executive Director of ELAM. She is also a founder and board member of the IPASS Patient Safety Institute.

What do we know about gender parity? I would like to highlight a 2008 article entitled *The Gender Gap in NIH Grant Applications* published by Timothy Ley and Barton Hamilton (Ley TJ, Hamilton BH, *Science*, 2008: 322; 1472-1474). In this article, the authors write that gender parity was present for medical school graduates; however, there was a dramatic change throughout the pipeline as one advanced from instructor to full professor. According to this 2008 article, the pool of female faculty in medical schools decreased significantly from assistant to full professor due to attrition and there was a significant decrease in females applying for independent NIH funding. Why is this occurring and how can we support women as they rise through the ranks? What are we seeing now? In a 2019 *JAMA* research letter by Oliveira and colleagues (Oliveira et al, *JAMA*, 2019: 321 (9); 898-890), the investigators evaluated more than 50,000 NIH grants received by first time awardees during the years of 2006 to 2017. These investigators reported significant disparities; the median total grant size for female PIs was approximately $40,000 lower compared to males at the top 50 institutions receiving these awards.

In a recent 2019 commentary (Ma Y et al, *Nature*, 2019: 565, 287-288), Ma and colleagues investigated winners of prestigious awards given by five societies (the American Association for Cancer Research, the American Society of Clinical Oncology, the Society for Neuroscience, the American Heart Association, the Endocrine Society) between 1968 and 2017. Though women have made some gains over the past several decades, the number of awards from these five societies given to men were still significantly higher compared to women as of 2017. Furthermore, in this same article, prizewinners who were women were awarded on average, 64 cents per dollar, compared to male prizewinners.

In a recent *Lancet* commentary (*The Lancet*, 2019: 393; 508-510), Jocalyn Clark and Richard Horton highlight the challenges that women encounter leading to academic disadvantages. Women have historically been under-represented as peer reviewers of articles and as members of editorial boards. To tackle this, *Lancet* audited gender among editors, reviewers and authors in an effort to promote equity. This type of advocacy leads to change, tackling the disadvantages.

We will now move to our first speaker, Dr. Elena Fuentes-Afflick.

Dr. Elena Fuentes-Afflick (EFA):

Thank you so much, Dr. Davis, for your introduction. Thank you, everyone, for joining us today. I'm honored to participate on this panel and want to thank Dr. Tamara Simon, who created this panel for a presentation intended for the PAS meeting. Nonetheless, we are delighted to have this opportunity to share with you today. My focus will be on individuals, how do these issues affect us as individuals, and what can we do? We know, as Dr. Davis stated, that we have been riding a pink wave of a growing representation of women in medicine, a wave that has lasted 40 years. Within the field of pediatrics, we know that there has been a major influx of women into the field. According to data from the American Academy of Pediatrics (AAP), over the last 30 years the proportion of female AAP members has increased substantially. We also know that the distribution of female physicians varies by specialty. In pediatrics we are at the forefront of the gender transformation and 63% of clinically-engaged pediatricians are women. The lowest proportion of female physicians is in orthopedic surgery. There's a lot of variation. Specialties such as Obstetrics, Dermatology, Family Medicine, Internal Medicine, and Psychiatry also have high proportions of women. Currently, when we consider our workplace and our universities, we see women in the lab and in the clinical setting but we are still worried about representation at higher levels of leadership. The STEM pipeline metaphor is used to demonstrate leakiness, as female students leave the educational pipeline and don’t have the opportunity to join our professional ranks. The same dynamic is true for underrepresented individuals. As Dr. Davis stated, once we reach the faculty ranks we still have pipeline issues and the proportion of women decreases as faculty rank increases. At this point in time, after 40 years of increasing proportions of women in medicine, what does the gender transformation mean for our field?

To prepare for this presentation, I searched the literature to identify useful references and I found a relative paucity of information. Using PubMed, I searched using the key words diversity and workforce. Without restricting the year, I retrieved 3000 citations. When I searched by diversity and scientific workforce, the number of references diminished and when I searched for references using the terms diversity and pediatric workforce, there were very, very few references. I also searched using the phrase gender equity and retrieved quite a few citations. Adding the term workforce, either scientific or physician workforce, resulted in a dramatic decrease in the number of published studies. So, this is a call for all of us who do research because we need further study to understand the impact of gender and other demographic transitions for our field.

I'd like to discuss salary and gender equity. Recently we learned about salary equity in the world of sports, and the Women's Soccer League highlighted differences in compensation between female and male athletes. The challenge of compensation applies across the employment spectrum. The National Faculty Survey was conducted by Freund and colleagues to assess compensation over a 17-year period. The survey population included women and men across 24 schools of medicine in the United States, and respondents self-reported their demographic factors, training, and other variables. The authors reported a gender-based difference in unadjusted analyses of salary and women were compensated $20,000 less than men. After a series of multivariate adjustments that included demographic characteristics, department, and other aspects of professional careers, the difference in compensation was only slightly diminished, almost $17,000, and was still statistically significant. The final multivariate model added a variable for part-time employment or taking a leave of absence, and the addition of this information made the gender-based difference in compensation non-statistically significant. The study suggests that employment status and leaves of absence are important contributors to compensation for women. In another study of internists, including primary care physicians, specialists, and academics, there was a gender-based difference in compensation. So the issue is not restricted to the private or academic sector because there were gender-based differences in compensation in each area. The American College of Physicians (ACP) attributed these findings to specialty choice, the number of years of experience, the number of hours worked, choices made to balance work and family responsibilities, and the lack of mentors and role models. The ACP speculated that issues like discrimination, either on the basis of gender, for taking childbearing leave or other factors related to being a mother were a factor. Intersectionality is a concept that we're increasingly recognizing, the way that ethnicity and gender, or ability status and gender, or LGBT status and gender, can impact our career experiences.

I'd like to share some work that we've done at the UCSF. We undertook a University-wide analysis of salary equity to assess whether there are gender or racial/ethnic differences in compensation. This may sound like a simple undertaking but it's complicated because you must define the study population and the outcome, including which elements of compensation to include. After defining those characteristics, you need to specify which variables you believe may contribute to compensation, such as department and academic title. In general, female faculty at UCSF have fixed compensation that is 3% lower than men. We have not identified differences by race/ethnicity. When we have asked individual departments to explain differences in

compensation, the usual explanations have been variation by practice site, subspecialty compensation, and other aspects of “business justification.” For example, ‘*to recruit a sub-specialist to our university, we have to offer a high salary.*’ This explanation may be true, but is it right? That's a judgement question, because we know that there are often gender-based differences in decision-making at many stages of career development.

Finally, I’d like to focus on other issues, the way to “play the game,” because I believe there are elements of our work that resemble a game, and we need to know the rules and how to play it. Let’s start with hiring, because all of us are involved in search and hiring processes. I would suggest that even something as mundane as preparing the job description requires us to be conscious of language because some words can be interpreted as being normative or limiting, depending on the lens through which you look. For example, and this is demonstrated in a recent Harvard Business Review article, women are more hesitant to apply to jobs when the job description includes words that are used in typically masculine ways, such as ‘outspoken, competitive, ninja.’ On the other hand, men may be discouraged from applying to jobs that include the term ‘collaborative’ in the description. To mitigate any kind of bias in the text of the job description, review your job description text through the lens of different perspectives. Touching briefly on the topic of implicit bias, I highlight a recent article by Dr. Tiffani Johnson and colleagues, who studied pediatric faculty who attended diversity workshops and completed the Implicit Association Test. Among study participants, a slight pro-white, anti-black bias was identified. The results were similar for leaders and non-leaders and those who were involved in recruitment. The participants reported the following barriers to recruitment of underrepresented people: a lack of mentors, ineffective recruitment efforts, and a lack of candidates.

Self-promotion is another important issue related to gender equity. We know that women are less likely to self-promote than men, and even if that is a characteristic of many women, it can result in gender-based differences in career progression. Similar to hiring, we all write letters of recommendation, and I would encourage you to look at the letters you've written and consider whether you are using gendered terms. Men are often described using words such as ‘star’ or ‘stellar performer,’ and women are often described as ‘diligent’, ‘hard-working, and ‘loyal.’ Thus, letters of recommendation may be one way in which we unconsciously contribute to ongoing stereotypes.

As institutional leaders, we are often involved in choosing speakers for Grand Rounds and other conferences. A recent national study reported on the gender diversity of Grand Rounds speakers within each department. In departments of pediatrics, although our faculty are slightly more than 50% women, approximately 40% of Grand Rounds speakers were women. If you would like to improve the gender diversity of speakers at your institution, what could you do? First of all, collect data, so you know whether you’re already successful. You could develop a speakers’ policy related to promoting gender diversity and establish a program committee to ensure that you're diversifying your pool of speakers. Try to have a family-friendly approach. In 2019, Dr. Francis Collins, NIH Director, received national recognition for his call for an end to all

male panels of scientists. Dr. Collins' position is particularly impactful because he is a prominent man in academic medicine and science. Each of us can be our own Francis Collins, and we can ask about the diversity of the other presenters when we're asked to speak at a conference. We can encourage conference planners to promote diversity through the inclusion of women and underrepresented people. For conferences such as the PAS, we could analyze the distribution of speakers by gender, for example.

In summary, I believe that each of us can take action to promote gender equity. One option is an institutional salary equity analysis. For yourself, be prepared to negotiate your salary, have data and negotiating tactics. All of us need to be aware of the biases we can bring to hiring, advancement, and career opportunities. When writing letters of recommendation, be aware of the use of gendered terms. Be sure to nominate qualified women and underrepresented people, for conferences, Grand Rounds, and other opportunities. Thank you very much.

SDD: That was outstanding! Dr. Fuentes-Afflick, thank you very much. I really appreciate you presenting and we're now going to turn it over to Dr. Daniels.

Dr. Stephen R. Daniels (SRD):

Thank you. I, like everybody else, wish we were doing this in person. We were originally scheduled to do this at the PAS meeting, and we were all really excited about the opportunity. But, on the other hand, this will be our best alternative, and we're all learning more and more how to do a better job at presenting through Zoom conferences.

I'm going to talk about searches and retention and programs that support career development and trainees. I think all of these areas are really important and discussing how institutions can support gender equity, as well as equity across other dimensions are important topics. So, starting with recruitment, it's important to recognize that recruiting faculty is a complicated process these days. You heard a little bit about that from Dr. Fuentes-Afflick. I think it's fair to say that if we continue to do things the way we traditionally have done them, we will continue to get the same results that we have gotten historically. The way to get out of that box with recruitment requires that you think about this in a positive way. You need to think about contact and interaction as an important part of the recruitment process. It's very important to cast a wide net. Use your broad personal and professional networks, and those of the faculty, to identify candidates. Search committees sometimes get caught in a trap of just identifying the usual suspects and this may not produce the result you want. I also think search committees need to be persistent. Many people who you may want on your faculty are not really thinking about switching locations and switching jobs. Part of the job of the search committee, and the chair and other faculty members, is to convince people that the job you're offering is the one they really want. Search committees need to encourage candidates from diverse backgrounds to apply. You need to look at every search as an opportunity to improve diversity in the department. That's something that can't be emphasized enough. Search committees need to commit to this concept. All search committee members

should have specific training in implicit bias. Implicit bias, as you have heard, is a complicated subject. We could spend a long time talking about it. We have mandated this kind of training for our search committee members. It's interesting that many search committee members actually are surprised by their implicit biases, and that allows a discussion and an interaction around that topic.

So, what about retention? From an institutional perspective, we need to pay attention to a variety of things. Mentoring is an important one, and that includes both career and life mentoring. People need a range of mentors to be able to help navigate the complex environment in academic medicine. Institutions need to work hard to make sure that individuals get the kind of mentors that they need. We also need leadership development opportunities. Women faculty, and faculty from diverse backgrounds must have this opportunity for career advancement. This can happen locally and nationally. It's important to pay attention to faculty morale and satisfaction. It is especially important these days, when we're all really stressed. There's a lot of anxiety about both our work and our family and we, as institutional leaders, need to think about how best to support our faculty as we go through this stressful time. Faculty need recognition and awards. When we do surveys at the University of Colorado, and at Children's Hospital Colorado, recognition comes across as a very common issue. Faculty don't feel there is enough recognition of their hard work and their successes. Institutions can play a big role in making sure that recognition occurs. I also want to talk a little bit about programs that support career development. This includes the distribution of unfunded and protected time, which needs to be done in an equitable way. Equitable distribution of resources, making sure that there are not limitations on space or equipment, or other things needed for success, and no implicit or other kinds of bias in this distribution, is also important. We need to support incentives for success. We need to match support and resources to career and life stage. It's not one size fits all; it's individualized. We need to make sure that we're working hard to create that sort of individualized support, so that people across the board have the highest chances of success.

I'm going to talk about something that we've done at the University of Colorado, that is focused on research intensive faculty. This is just one example. We need to be doing things across all faculty types, but this may highlight some ideas about how we could approach these issues. Why did we need to do this? Why did we need to think about a program that would support research intensive faculty and think about how to incentivize success? Well, we all know that funding for research is very competitive, and that becoming a successful independent investigator is a very challenging thing to do these days. We also know that maintaining existing funding, while working on new awards, is of critical importance to the department and to divisions. Stability of this mission is a critical aspect of making sure that our departments are working well. We need to formalize the understanding of the department's ongoing commitment, establish the appropriate expectations and incentivize productivity. So, what did we do? We wanted to define research expectations so that people really knew what we, as a department, were expecting from them. When we delved into this a little more deeply, we found that most faculty assumed that we were expecting that they would cover 100% of their salary, when in fact, that was not what we were expecting. We wanted to clarify what was expected and required and where that level of guaranteed salary support for the part that wasn't covered by grants would

come from. We also wanted to provide faculty and sections with the ability to generate individual research reserve accounts, so that if they exceeded expectations, there was a reward. The eligible faculty were those in the tenure track, PhD faculty in the research track, MDs with a research effort greater than or equal to 50% FTE, as well as MD faculty working toward or with independent research funding. What were the expectations? After a lot of discussion with our faculty and our faculty leaders, we concluded that, for assistant professors, we expected them to obtain 40% of their salary through extramural grant support. We encourage that the 40% include a K award, R award, U award, or some equivalent federal or other type of association or foundation grant. For associate professors and professors, we expect 60% of their salary to be covered through extramural sources, and this must include the equivalent of a federal type award. What's the benefit of exceeding this expectation? We determined that we would contribute the amount of salary and benefits over the goal, whether that was 40% or 60%, into an individual reserve account in the name of the faculty member and supported by the department. This created an account that included funds that could be accessed for future research needs for the investigator. This was a fund that could be saved or could be spent depending on the particular need for that investigator after discussion with their section head. If faculty members were especially successful and exceeded 75% of salary and benefits, this would also qualify for contribution from the department to a section reserve account equal to 25% of salary and benefits. So, for especially successful investigators, they receive resources to support their own research, and their section also receives a benefit to support research more broadly. Now, because K awards are a bit of an anomaly, in the sense that they cover 75%, or they demand 75% commitment, but often don't cover 75% of salary, we created a $20,000 commitment annually for extra support for those who receive K awards.

I wanted to finish with a discussion of a program we developed to support trainees that, I think, has interesting implications in terms of gender equity. We created a parenting elective for pediatric residents (Melanie Cree-Green MD, PhD, Jonathan Cree MD, MA, Kathy Urban BS, C-TAGME, Maya Bunik MD, MPH, Amy E. Sass MD, MPH, Adam Rosenberg MD. A Structured Neonatal Parenting Elective: An Approach to Parenting Leave During Residency. Acad Pediatr 2020 Jul;20(5):595-599. doi: 10.1016/j.acap.2020.02.008.Epub 2020 Feb 8). The goal of this was to allow for intensive time with their newborn, to better understand the day to day issues that arise in the neonatal period, as well as to study in depth, common outpatient medical issues during the neonatal period. The goal was to turn early childcare into an elective that counted as part of our residency program requirement. In order to do this, as everybody knows, there's a formal process for developing electives. Electives must have objectives. So, I'm going to just briefly go through these objectives. The idea is that this elective would increase the resident's medical knowledge and that it would do this in a variety of ways related to breastfeeding skills, and other day-to-day activities that happen with raising a newborn. Also, there was an objective focused on patient care because providing for a newborn includes many aspects of patient care. By providing 24/7 newborn care, we determined that this would be equivalent to the kind of medical care achieved during an elective month for our residents. Communication skills are improved. The parent has to communicate with health care providers. The

resident also develops and presents a conference talk of 25 minutes on these topics. Professionalism was another objective. This experience would allow development of empathic approaches to other parents and their newborns. I think we all would agree that we become better pediatricians once we become parents ourselves. We also evaluate the balance of parenting with a career in medicine, both through personal experience and through review of published studies. The parenting elective also includes system-based practice objectives and practice-based learning and improvement objectives. All residents who have a newborn are eligible, so mothers and partners, and this could apply to a biologic or an adopted child.

The resident can also apply unused vacation time. So, the total amount of paid leave of 6 to 8 weeks, was quite different than the previous experience. We compared residents' pre and post elective to see what kinds of differences there might be, and I'll just present a few of the results. For 'weeks of leave' for mothers, before the elective was available, there was a wide range, and some mothers took as few as 2 or 4 or 6 weeks. Whereas after the elective, many more of our residents who were mothers took 7 or 8 weeks and, as I mentioned before, these are paid weeks, so there was no unpaid leave under those circumstances. For partners, it's also interesting because prior to the elective, partners tended to take either 0 or 1 week of leave, whereas under this elective opportunity, there was a distribution from 1 to 8 weeks, with many taking four weeks of paid leave to do this elective. We also looked at on-time graduation. We wanted to evaluate whether this elective would change the experience with mothers and partners in terms of finishing on time and starting post residency training or jobs. We found that 69% pre-elective versus 93% post-elective graduated on time. That does appear to be a meaningful difference. What we're seeing now is that this is allowing most of our residents to take leave, spend time with their newborn and to graduate on time. Our conclusion was that parenting a neonate provides important learning opportunities for residents as they become new parents. These learning opportunities can be developed into an elective that is completely consistent with standard requirements for training. This elective improved outcomes for mothers and partners across several dimensions. I'll stop there and I'm looking forward to the upcoming discussion.

SD: Thank you Dr. Daniels, that was terrific. I'm now going to turn it over to Dr. Spector.

Dr. Nancy Spector (NS):

Thank you so much Dr. Davis. It really is a pleasure to be here. I want to echo what Dr. Fuentes-Afflick said in the beginning, which is to thank Dr. Tamara Simon, who is now the director for the Office of Training, Education, Career Planning, and Development at Children's Hospital Los Angeles who really brought us together. And, I'd like to echo what Dr. Daniels said, it really would have been wonderful to be in person and to really generate some really great conversation, not only during this session, but over the course of the PAS meeting. As was mentioned earlier, I'm the Executive Director of the Executive Leadership in Academic Medicine or the ELAM Program, and I would like to share more about the program which will provide some context about my perspectives. ELAM, is an executive leadership program for women in academic medicine across all disciplines in the fields of medicine, dentistry, public health and pharmacy. To be an ELAM

candidate, you must be well established in your discipline, an associate professor for at least three years, have a leadership role in your institution, and then be nominated by your own dean to enter into the application pool of ELAM. Women are entering the pool because they aspire to the highest levels of leadership. The ultimate mission of ELAM is to create equity at every level of leadership in our academic medicine world, and we are very far away from that. Currently, 18% of deans at US medical schools are women.

What I'm going to highlight is “the time is now”. With the COVID-19 pandemic and the second pandemic triggered by George Floyd’s death and others, it's really become a crisis for many women in medicine. We must support everyone in medicine, and in particular, we must support women, women with intersectionality and all who are under-represented in medicine. I'm going to emphasize a fact that although I run leadership programs that I’m very passionate about, it is time for us to move away from “fixing the women”, and time for us to start moving and changing systems. What I'd like to do is articulate a little bit more about the gender disparities in pediatrics, and frame it in the context of disparities of other professional fields in the country, and then communicate the imperative to make rapid change. So, this is where the urgency comes along. We need to move. Finally, I will describe best practices and innovative methods and collaborations that are currently going on across the country. The work I've been doing in ELAM and with other leaders in national organizations has focused on breaking down the silos, the independent work that is occurring, either within one professional society or one institution, and to broaden these initiatives so we can share resources, we can share best practices, we can learn from each other. Again, we need to work together to move the needle forward and eliminate some of the problems that were mentioned earlier around pipeline, support, etc. So, this was stated earlier, but the percentage of women in practice in pediatrics is 63%. So we, in pediatrics should be leading the way in medicine to advance women in leadership. Women in pediatrics and in academic medicine are 59% of the faculty, and are 27% of the chairs. That is really remarkable, because if you look across all disciplines, 17% of the chairs are women. So we're doing much better. I frequently comment that we need to get to 30% women. Whatever area of diversity you're looking at, you need to get to at least 30% in order to ensure change in structure and culture. That's because when women or people of underrepresented groups or those who experience intersectionality are in leadership positions, we are always more visible and more vulnerable. If something terrible happens to us, even if there is a minor infraction, we’re looked at differently, and it's really challenging to get another job, whereas that is not true for the majority of white men.

Across medicine, as I mentioned, 18% of the deans are women, and over half of them are ELUMS, meaning they graduated from our program. So, we've definitely had success, but we have quite a ways to go. We have not reached the critical mass of 30%. We know that right now in the United States, all of our medical school classes have enrolled more women than men for the very first time, and we are becoming a larger and larger percentage of the physician workforce. 19% of chairs in internal medicine are women. But if you go into the dean's office, you'll see another interesting phenomenon. 46% of assistant deans are women. 39% of associate deans are women. 33% of senior associate deans are women and then again we drop to 18% of deans are women. There are a couple of issues that I think influence these facts. First of all, there are

many, many more assistant dean positions and associate dean positions. Many of them are in the areas that I would consider service oriented. I'm in a service-oriented job in my position as dean of faculty.

The position could be Dean of Diversity, Equity, inclusion, or the position could be Dean of Wellness. There are many other positions, and there are many other really creative titles, which are critically important to the missions of our medical schools. However, the senior associate deans and deans often are the people who have resource allocation and power like the Dean of Finance and the Dean of Research. There is power disparity in a lot of these roles. This is something we need to be aware of. In terms of disparities, it was mentioned already that compensation is a really significant issue. Both of the prior speakers spoke about this issue, and as people are digging deeper and deeper into this, it's very apparent. Dr. Starmer and her colleagues published an article last October about salaries in pediatrics using the PLACES data, which is a very large composite of data. These pay disparity gaps are really underestimated because they don't account for 401K contributions, social security benefits, or paying off educational debts. The pay gap across our medical disciplines is .76 to .90 cents for the dollar paid to men across different department types. There's another piece of this that's going on in the background of our country. There is something called Equal Pay Day in the United States. That's the day that all American **women have to work into the new year just to earn what the average white man earned at the end of the previous year.**

We must work longer to meet the same salary that men reached on December 30th, or 31st of 2019. The Equal Pay Day for white women was March 31st, 2020. For Black women, Equal Pay Day was August 13th, 2020, for Native American women, Equal Pay Day was October 1st. For Latina women's Equal Pay Day, it was October 29th. There are really great disparities. Obviously, there are a lot of factors that need to be analyzed and really deep dives need to be instituted among our leaders to understand these issues. I applaud the efforts that have been done at both UCSF and the University of Colorado. In addition, there are other disparities. These disparities occur at every level of our organizations and our professional societies and our editorial boards. While the number of women on boards in pediatrics has been increasing, there still remains a gap. I would like to point out, of our four highest impact journals in pediatrics, all four of the editors are men, wonderful men, but, they're men. Over time, the proportion of women on those boards has increased. It's about 40% right now, but we still haven't met equity. Maybe because we have more women in pediatrics, we should have more women than men on boards? There's also been quite a bit of studies across the country evaluating first and last authors for original research and invited commentaries. Still, despite the number of women in pediatrics, women represent fewer of the first authors and senior authors. This is very important, particularly with commentaries, because those are invited pieces which represent that person’s power and influence. Very prestigious.

Additionally, women are not equally represented as plenary speakers in pediatrics. As we compare our numbers to the Association of American Medical Colleges (AAMC), we are below benchmark in terms of other specialties. Each year, since 2015, the number of women plenary speakers has been less than 45%. So, that's

something, we as a field, can really dig into. Another key element that is linked to individuals, but is also definitely linked to organizations, is that we need to build a collective community environment of sponsorship. Women are more likely to have mentors, and more likely to have multiple mentors, but less likely to get promoted. We think, this is partly because of lack of sponsorship. Women don't happen to be in the room at the right time when a high-level position may be reviewed and presented. There is a lot to think about regarding where and when conversations are occurring that involve sponsoring somebody for a committee, for a certain project, etc. Also, we as women, are less likely to take positions, whether this is a high-level committee position or a new position without having almost 100% of the qualifications.

We often need to be encouraged, to Dr. Daniels' point, when you're recruiting a woman into a high-level position. Women often need to be asked 3 or 4 times to put their "hat in the ring". Sometimes they need validation from others to know that they are really ready for that position. That's not of course, across the board. But it happens very commonly, where men are more likely to put their hat in the ring earlier. I did love what Dr. Fuentes-Afflick was saying about the language used in job descriptions. We do have to be very, very careful about that. Then, the whole process of thinking about ideal searches has become more and more important, and we really have to think about best practices. So, what are some other strategies that we can employ to really move the needle? This is a schema, from a paper that Dr. Julie Silver and I wrote with others in *Pediatrics* last fall that received a lot of media attention. What we did is we asked, what is it that's really going to drive these processes? Because we're scientists, we know data is incredibly important and we don't always collect the correct data. We don't always use the data across institutions or professional societies, so that we're all sharing the same metrics and goals and can ensure that we are moving forward together. In our paper, we asked people to really think more carefully. By the way, the other piece of this is that we have to collect data on diversity, equity, and inclusion for the LCME, for ACGME, and for the AAMC, related to faculty and trainees. My dream is that the US News and World Report will report this data and that we will have a little more leverage to really move the needle.

The schema that Dr. Silver and I created will look very familiar to you because it's much like a PDSA cycle. We need to examine the equity, diversity, and inclusion data, and pick meaningful metrics to follow. We need to transparently report those results to all stakeholders. We need to investigate causality, implement strategic interventions, track outcomes and adjust strategies, and then publish and disseminate the results. So, again, through transparency and sharing, the cycle should be repeated. Dr. Julie Silver and I spent a lot of time last year with others, from other organizations, and some of the sub-specialty societies, reaching out to editors to ensure that they publish all papers related to gender, equity, diversity, and inclusion as free sources, meaning that nobody has to pay to see those articles. We've had a lot of great responses, including from the editors of our pediatric journals.

Again, we really need to move away from "fixing the woman", and we need to move toward "fixing the system". Leadership must pave the way. The leaders at the top have to pave the way. They have to be aware,

of the diversity at their own level. I think we really should be considering term limits for high level leaders. There was a great controversy last year where the NIH, under the direction of Dr. Francis Collins and Dr. Hannah Valentine, who is an ELUM, worked very hard to convince others at the NIH that the second level in command, the branch and lab chief leaders, should have term limits. I believe they suggested eight-year terms. They published this proposal in *Nature*. They did not look at the highest level of institute leaders, like Anthony Fauci, but they looked at that second level. I visited the NIH for a site visit on diversity, equity and inclusion, the day after the term limits had been overturned. It was heartbreaking for the women there. A lot of that had to do with the fact that there are very few leadership positions at the NIH, and very few ways to ascend. So, there are people in charge on the intramural side with lab funding for a very, very long time. We don't know how that influences extramural funding. Term limits are really important to consider.

We also have to critically look at policies around hiring, compensation, and promotion, and be transparent and open among institutions. There's a group called “The Women of Impact” who are the women CEOs of our healthcare systems, and they're creating a very large consortium where they're looking to share that type of data on the hospital side across a very large group of hospitals. Again, data collection is going to be critical, and I am making a plea that our professional societies follow the data as well. Pediatrics is partnering with other disciplines to work together, to look at the metrics and to follow whose winning awards. Who are the presidents? Who are sitting on the high-level influential committees? On the gender equity level, as far as journals, *The Lancet* is by far and away ahead in this area. In January 2019, they really challenged our communities to look at how we can enforce gender parity on editorial and advisory boards, increase the proportion of women reviewers, and diversify authorship. If you haven’t seen this issue, please take a look.

I'd also like to give a shout out to our very own, Dr. Samir Shah, who is the editor of *The Journal of Hospital Medicine.* He recently became the editor, a little over a year ago. The first thing he did was to dive into initiatives, looking at equity across the editorial board, as well as in the reviewer pool. He started with gender. It's been very challenging to collect data on other aspects of diversity, equity, and inclusion. I'm happy to talk about that at another time, but that's an ongoing effort going forward. In terms of sponsorship, I talked about how important it is. It can catapult somebody in a rising star status to a very high level. Sponsorship gives people visibility, gives people the opportunity to gain a network that they normally wouldn't, gives people the opportunity to gain skills and just really advances the ability for them to do their own work including their science. I mentioned Dr. Hannah Valentine as well. She is the Chief Officer of Scientific Workforce Diversity at the NIH. She has written quite a bit about us needing to move to project-based instead of people-based grant reviews to guide investments. Finally, I'll just leave you with some of the initiatives that ELAM is doing. Right now, ELAM has about 1,100, or a little more, graduates, who serve in leadership positions in 287 institutions. Approximately, 500 of us serve in high level leadership positions across the country, and some in other countries, and those positions again are chair, dean, president, provost, and again, we're striving towards critical mass at every level of leadership. A couple efforts that our ELUMs or our alumni, are leading, are to

work to get women on boards. We haven't talked about that yet, but the power at our institutions really resides at the board level. There are very few places that have standardized processes to bring new people onto boards. If you didn't know this, people who work on corporate boards can make up to $230,000 a year. So, if you can imagine, if you're the president of the university, and you serve on two corporate boards, and then you decide to retire from your presidency, you could make quite a bit of money by serving on boards.

People who are on boards often pick their friends and people who are like them to be on the board. So, we have a very large effort in this area. California is actually paving the way by publishing standards of how many women should be on boards. I just read updates about this, and there are a lot of corporations that are not following those rules, so we have lots of work to do there. Another key area is promotion and advancement. Awards obviously are a really great facilitator. We need to elevate women for awards, so ELAM has been collecting all the criteria and timelines for the most prestigious awards, like the AAMC Awards, the Lasker Awards and others. We are also working to create modules to ensure people can write the strongest letters of support, and we are also creating infrastructure so that women will be nominated for the awards. Last year, the Lasker Awards were won by five white men. We just have to move away from this. We have efforts combating structural racism in academic medicine. We have a group of about 50 ELUMS, many of whom are women of color who have leadership positions, they are helping us to really develop a series of conversations and then actions to address structural racism. Finally, male allyship is critically important. We have to move bystanders to upstanders, championing the way. Elena mentioned Dr. Collins's statement regarding Manels. I use that example a lot, and I say, women and underrepresented women and others who experience intersectionality have been saying this for 10 years. In fact, there is a policy at the NIH from the 1980s about diversity of panels. I think it was great what Dr. Collins did. It really shows the power of what male allies can do. I'm partnering with many others to develop an approach, perhaps some education and infrastructure to support male allyship.

The last thing I'll say, I mentioned earlier, we have been participating in a lot of efforts to coordinate with the larger institutions who are also interested in moving the needle in a much faster way. These include the American College of Physicians, the AAMC, the LCME, ACGME, CMS and many others. We think, at this point, unless we collaborate, share resources, and move together, we will not be successful. We will continue this trajectory. I'll end with Dr. Reshma Jagsi who is at Michigan and who is also in ELAM. She published a perspective article in the *New England Journal of Medicine* in 2019, that noted if we don't have term limits in academic medicine, we won’t hit gender parity for deans of medical schools until the year 2070. I am really, really amazed by the generations coming up behind us, their innovation, their creativity, and knowing that this is the right thing to do. I look forward to their impact in the future, but in the meantime, I hope all of you are empowered to really get out there and to start moving this needle. Thank you.

SDD: That was excellent, thank you, Dr. Spector. There are many questions and comments from the audience. 'The pandemic has widened gender inequity. Several papers have shown this inequity across work sectors, including healthcare. The impact seems to be greatest, at least anecdotally, based not just on gender but on family status. Do they have children? Do they have childcare? What are the school issues? Do you have a spouse or partner?' 'What agenda do you propose in order to study family status in conjunction with gender?' How has COVID19 impacted the productivity of women's careers? What steps can we take to avoid widening the gap?'

EFA: At UCSF, our chancellor has issued a survey so that people can respond to exactly that question, because while we are worried about it, the issue is what do we do about it? First, we need to understand what's going on. I hope that people will answer honestly. This is often an issue where people sometimes are reluctant to share what's really going on because they don't want to either be labeled or somehow limited. I think we need to collect data. I'm certainly aware of and hope to participate in a new National Academy of Medicine Study evaluating the impact of COVID19 on women in academics. I think that our journals, our scholarly societies and other professional organizations are going to be turning their eye towards this issue. In the meantime, it's happening "real time" so I think the best that we, as leaders, can do, is try to be open and helpful during this time and understand where do we have flexibility. The pandemic has forced flexibility that we didn't know we had, but all of a sudden we've figured out how to do things. This is going to require that we work together, creating new allies and trying to move forward.

NS: I've been thinking a lot about these issues from a leadership perspective. ELAM contributes names and potential candidates for many, many searches. I was talking to people who are leading those searches, saying women are reluctant to put their hat in the ring. Women are very institutional loyal and often in charge of the COVID response, if in a leadership position. Also, women are often in the frontline in regard to taking care of their families. Given this, women were turning opportunities down or pulling out of searches. Meanwhile, many and most of the searches, just because of the infrastructure of our institutions, have been led by men; men were pushing through. So, some of the search firms and some of the institutions actually slowed the searches down and made the search much more open to different types of communication as the pandemic was rolling out. This was early when nobody knew exactly what to do. There was an open dialogue about this issue. Proudly, I've seen many women enter and receive high level positions, so I don't know exactly what the gender gap is going to be at the end of the pandemic, but it's a concern. To address the issue about pipeline and the concerns that without productive scholarly activities during this pandemic, you can't get promoted or compete successfully for high level jobs, I think we have to be very supportive and open to conversation. We need to evaluate our promotions criteria, and how we are going to account for the impact of COVID 19.

SRD: This is a complex issue, and I think there are areas where some of the problems may be obvious. I also think there are some hidden issues that we need to think about and collect more data. We've implemented a couple of initiatives at the University of Colorado. One is that we've extended the promotion clock by a year to

give people a little less pressure and more time if needed. I think that's going to be helpful in some ways, but we need to do more. We need to think about what “more” is. We also have created focus groups among our faculty. We're doing this for a couple of reasons. One is because we've heard from faculty over and over again that they actually feel quite isolated in this pandemic. They're coming to work to do their clinical work, or specific research tasks, or educational tasks, but then they're leaving to go home. This reduces the number of opportunities for people to interact and collaborate. I think we need to find ways, even if it is virtually, for people to interact in a more general and social way. We also want these groups to focus on problem solving. There's a real concern about how to care for kids at home, who are not going back to school this fall, or others who are participating in hybrid school. How do families deal with that? We've started to think of some ways to help. For example, we as an institution are discussing the possibility of negotiating for cheaper rates for emergency daycare and other things, but there just are not easy solutions. We need to be putting our best thoughts forward to be able to try to understand these issues and help our faculty to be successful.

SD: Thank you! This is definitely not easy! Dr. Melina Kibbe, editor of *JAMA Surgery*, just published an editorial highlighting the drop in the percentage of manuscript submissions from women during the COVID pandemic. We need to monitor the possibility of a widening gender gap in academic productivity during the pandemic. Next question: ‘How can we help our male hospital university leaders recognize the importance of their role as a sponsor? Many times women can't advocate for some of these opportunities, if the men in charge don't recognize their roles as sponsors.’

SRD: Nancy, you were saying that this shouldn't be about fixing women, it's about fixing systems. This may be an example where it's about fixing the men. I think an important distinction that was made was the difference between mentorship and sponsorship. Both are important, but they involve different skill sets. I tend to think that we all could do better with providing sponsorship, and we need to continue to work on this. In my mind one of the problems is that it's not so easy to collect data on sponsorship. It's an activity that is often hidden. We need to think about how to highlight sponsorship in order to help people understand where they're being less proactive, and less effective in support of women faculty members.

NS: For me, when I visit an institution, I spend a lot of time discussing sponsorship with the male senior leaders, and sometimes it's just that they weren’t aware. Sometimes you can connect on this topic if they have somebody in their family who is in medicine. They will say ‘oh, wow, that really would help that person’ and it opens their eyes to the importance of sponsorship. It really is more of an education to improve understanding of the differences between advising, mentorship, sponsorship, and professional coaching. This is really important because all these relationships could be on a continuum, but they have different functions and responsibilities. A sponsor is supposed to help that person be successful in their new position. Providing them with the inside scoop or background skills can help lead to success.

SRD: Nancy, please share your thoughts about women being more proactive and asking for sponsorship.

NS: I think we have to be very thoughtful about how the ask occurs; this highlights the importance of graceful self-promotion. How you ask is important because women may appear too aggressive when using certain language. Sometimes this ask may need to come from another person that you know, a more senior mentor who may say ‘you know, Steve, Elena would just be amazing on this committee. What are your thoughts about sponsoring her for that?’ So adding allies into the process may help. I'm hoping over time, as we change the culture, we will do better.

SDD: Great! Next question. ‘What strategies are available to support and retain faculty on academic research tracks when they often have family responsibilities beyond those of male partners? What strategies can we do to support women and retain them?’

EFA: I would say that I see this as an opportunity to leverage the mentoring relationship. When you have a mentoring relationship, the nature of this relationship is different than a coaching or a sponsoring one, I think that's where you can share your own experience. There is not only one path. I think we often have this idea that there's a secret, and as soon as I learned the secrets, I'll figure it all out and I can do everything. I think sharing examples may help. Also, seeing people who you admire, respect, or who have done something that you would like to do or aspire to do and getting to know them, developing a mentoring relationship and realizing they also have family responsibilities, children, or other challenges. I think as women, we sometimes get stymied by not seeing someone else who we think looks like us. So somehow finding this in a safe space may help. At our home institution, sometimes it doesn't feel safe; maybe that's where our professional societies can form that kind of home. I would also say that in my own experience, I've had a lot of mentoring relationships from men, and so, I don't want us to get too locked into someone who looks just like us, but is a few steps down the path, because sometimes you're lucky and you find that relationship, but often you don't. If you don't, that doesn't mean you can't piece it together. Let's just acknowledge it's hard, and it's kind of hard at different steps. It's not like it's hard today, and then you solve it, and then a year from now, you know what to do, it's constantly evolving.

SRD: I think we have to recognize that it's not a one size fits all. We've tended to have a one-size-fits-all system that was designed around what worked for men. We need to get out of that paradigm. There are some examples around the country where institutions have created specific awards for mid-career women faculty, recognizing that it’s a particularly vulnerable time period, and that additional support can be helpful. It can be monetary, but it can be time, and other types of resources that can be really beneficial.

NS: I wrote a paper with others on the invisibility of the mid-career academic woman, and all the factors that surround this career stage. We put a lot of resources into our more junior group, into our leadership group, or the full professor, but that’s different. I agree that the mid-career academic woman is the most vulnerable. I've been trying myself to work with others to build systems of support at that level.

SDD: This question is specific to the program that you presented, Steve, ‘how has your new rubric impacted equity? I could see how these policies could accentuate gender equity. In other words, do you have any outcomes? And how often did the extra support go to men versus women? And another question,’ ‘how is the guaranteed salary program supported?’

SRD: This would require a lecture on the finances of academic medicine, which would be a longer session but, realistically, the way we support our research mission is through our clinical revenue. We have other lines of support, philanthropy, etc. However, working in a state institution that receives virtually zero support from the state of Colorado, means that we’re really left to our own devices on how to deal with the finances. I really appreciate the question about how this will play out over time, and how will it look in terms of gender equity, and I'm honestly not sure. We've just started the program. The faculty are excited about it, both men and women. However, we've only been supporting this program for one year. We need more time for it to really play out. I think we need to make sure that it doesn't turn out to be something that somehow favors men as compared to women or disadvantages minorities. We’re going to keep monitoring that. What we found, though, was that many faculty members really didn't understand the departmental expectations around research and what grant support we as a department were expecting. That led to extreme faculty anxiety across the board, faculty were feeling that they needed to do things that, in fact, we weren't expecting. So, that part will help universally, but for this to really be successful requires a focus on the pipeline. I think that we need to make sure that our initial support for faculty, as they launch their research careers, is equitable, and tailored to success. If we don't do that, then this program won't be as successful as I would hope.

SDD: For the final question, ‘Is there any research comparing women and men regarding the breadth of different academic activities? There are many activities faculty are asked to do that frankly won't lead to tenure, but can be incredibly meaningful. Do you think promotion criteria for tenure need to include more activities at many institutions?’

EFA: I would say that at the UCSF we take a very broad approach to how we evaluate our faculty. We expect and assess service; this includes university, departmental and community service. We assess diversity. We have a structured way to evaluate contributions to our diversity emphasis. So, we're trying to be balanced. But you're right, we ask faculty to do a lot. We don't fund them to do almost any of it. You know, we may be getting to a bit of an inflection point with what we expect and what we support. I think our structures do need to be re-assessed.

NS: I'll add that many institutions are going through the process of looking at their promotion and tenure criteria, and to think about more creative ways, or better ways, to give credit and support. A lot of that service is incredibly important to the missions of our institutions. I would say the tax for underrepresented people in medicine is extremely high. This includes service on search committees and on other committees, because everything now has a diversity requirement. If you don't have a diverse pool, and certain people are really being taxed in that area, that's something you need to be aware of as well.

SRD: This reminds me that I used to present a talk about how to say no, because people tended to do everything that they were asked. I have a feeling that faculty have gotten too good at saying no to some things. So, we need to talk about how to make rational decisions about what's best for career development and how to get the right advice from your mentors and other leaders. It's a balancing act these days.

SDD: Thank you very much. This was an excellent discussion! I want to thank Dr. Daniels, Dr. Spector, Dr. Fuentes-Afflick for your presentations and Dr. Simon for organizing this presentation.

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