antagonists, reinforcing the hypothesis that these are two distinct clinical conditions.^{2,3}

Another point that still needs to be better defined is whether refractoriness should be based on the absence of office BP control or ABPM/HBPM. Since ABPM is mandatory in resistant hypertension clinical follow-up, I believe that refractory hypertension should also be based on uncontrolled out of office BP without the need of using the distinctive term true refractory hypertension.⁴

In different populations described so far, refractory patients are more frequently women, younger, obese, diabetic and have metabolic syndrome.^{5,6} Most of the studies have described a high prevalence of asymptomatic hypertension-mediated organ damage.^{3,5} Being a historical cohort, in our recently published study⁶ we were able to divide refractory patients between pre- and post-spirolactone eras. Surprisingly, we identified that, despite the lack of BP control when using 5 or more drugs, the introduction of spironolactone showed an improvement in the cardiovascular risk profile with less aortic stiffness and decrease in left ventricular mass. Still, further robust longitudinal studies are needed to let us know the actual prognosis of refractory hypertension.

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NEW BLOOD

Mentoring: a priceless relationship

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Priceless. Crucial. Helpful. Opportunity. Network. Satisfying. These were the words the six senior members of our research community used to describe their mentoring experience when interviewed for the [ISH Podcast](#) in 2020. Professor Rhian Touyz, the first female president of the ISH as well as the first mentor we interviewed, said “Mentorship is important because I feel one can always learn from others”. Professor Stephen Harrap, also a past ISH president, spoke about mentoring

References:

1. Acelajado MC, et al. Refractory hypertension: definition, prevalence, and patient characteristics. *J Clin Hypertens.* 2012;14:7-12.
2. Dudenbostel T, et al. Refractory versus resistant hypertension: Novel distinctive phenotypes. *J Nat Sci.* 2017;3, pii: e430
3. Muxfeldt ES, Chedier B. Refractory hypertension: what do we know so far? [published online ahead of print, 2020 Sep 1]. *J Hum Hypertens.* 2020;10.1038/s41371-020-00409-z. doi:10.1038/s41371-020-00409-z
4. Dudenbostel T, et al. Refractory hypertension: evidence of heightened sympathetic activity as a cause of antihypertensive treatment failure. *Hypertension* 2015; 66:126-33
5. Armario P, et al. Prevalence and clinical characteristics of refractory hypertension. *J Am Heart Assoc.* 2017; 6(12). pii: e007365.
6. Chedier B, et al. Prevalence and clinical profile of refractory hypertension in a large cohort of patients with resistant hypertension [published online ahead of print, 2020 Aug 31]. *J Hum Hypertens.* 2020;10.1038/s41371-020-00406-2. doi:10.1038/s41371-020-00406-2

providing “an objective independent view to the mentee”. Professor Maciej Tomaszewski, current president of the ISH, adds “You need someone who you can look up to because that makes your life much easier and you can benefit enormously”.

It was inspiring to hear the many ways our interviewees have helped their mentees. Examples included guiding them on career choices after training or how to climb the professional ladder,

serving as referees for job applications or awards, introducing mentees to leaders in the field, promoting their work, and stimulating their passion about research. Professor Xin-Hua Zhang, president of the World Hypertension League, says *"Mentors can share their knowledge and network",* and by many different ways support mentees to achieve their goals. Associate Professor Dylan Burger, chair of the ISH Communications Committee, adds *"It all starts by having a conversation with the person and finding what they want to get out of the relationship (...), and working with them to do what you can to help".*

Who needs a mentor, and when?

From the interviews, the unanimous comment was that everybody benefits from mentoring. Professor Alta Schutte, the second female president of the ISH, mentions that a great time to start a mentoring relationship is early during PhD training. She mentions that many PhD students do not plan ahead their careers. By inviting her mentees to have a discussing about it she could inspired them to identify and follow their ambitions. Professor Touyz added: *"The earlier you can engage with a mentor the better it is",* but as Professor Zhang states *"At every stage of your life you need a mentor".*

How many mentors one needs?

A recent survey of 508 American College of Cardiology cardiologists identified that those with a team of 3 or more mentors external to their institution had higher satisfaction with their mentoring experience.¹ This satisfaction was association with their perceptions of achieving their career goals.¹ Indeed, Associate Professor Burger says during his career he has had many mentors, who have been fundamental for his career progress. He added *"Don't think of mentoring as a single match of one mentor and one mentee, but look for many mentors that are going to help you in various areas of your career development".*

What makes a great mentee?

Many of our interviewees said that great mentees are open-minded. Professor Harrap explains

"Opportunities would appear out of the blue and even thou you have a plan in your mind if you don't deviate (...) you might miss a really excellent opportunity". Professor Schutte comments that a great mentee gets out of their comfort zone and has the *"willingness and ability to reach out despite the fact that it is daunting to do so".* Indeed, Professor Touyz says that it is crucial for mentees to be comfortable to share their concerns with their mentors, so they can help. Professor Tomaszewski adds that great mentees are ambitious, driven, curious and passionate about research.

In times where uncertainty is the norm, turning to mentors for support is crucial, especially for early- and mid-career researchers.² Professor Tomaszewski says that in the past mentoring relationships happened organically, without a structured system such as a mentoring program. This meant, however, many would miss out on the opportunity to have a mentor. Professor Tomaszewski says that *"we were one of the first societies to put such a strong emphasis on the new generation".* While earlier versions of the program existed, the ISH Mentoring Scheme as we know now was launched in the 2014 Athens congress. The scheme continues to support our community today – everyone is welcome to apply to be matched with a mentor. If you would like to be matched with one of our senior members, all you need to do is to complete this [form](#). We learned much during the interviews and hope all our members enjoy listening and learning about maximizing their mentoring experience. We welcome new [nominations of interviewees](#), both leaders and emerging leaders within the ISH.

References:

1. Abudayyeh I, Tandon A, Wittekind SG, Rzeszut AK, Sivaram CA, Freeman AM, Madhur MS. Landscape of mentorship and its effects on success in cardiology. JACC Basic Transl Sci. 2020;12:1181-1186
2. Climie RE, Marques FZ. Impact, strategies, and opportunities for early and midcareer cardiovascular researchers during the covid-19 pandemic. Circulation. 2020;141:1838-1840

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