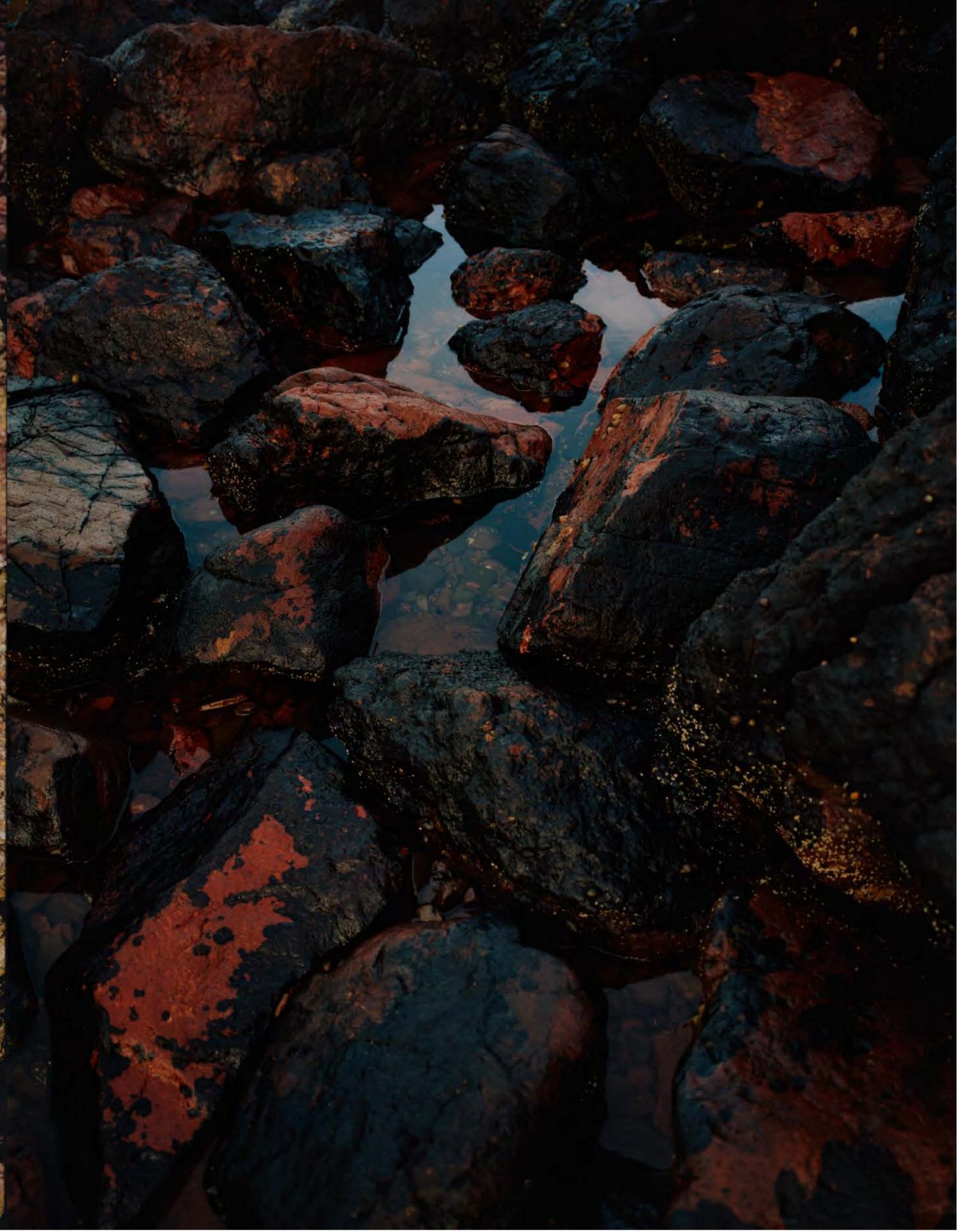


DR
VARSHA
JAIN

CLOAKROOM CONFIDENTIAL

Photographs by
LAURENCE ELLIS





'WHETHER IT'S A REGULAR
PATIENT WHO SEES ME IN THE CLINIC
OR A FEMALE ASTRONAUT,
THE PRINCIPLES I FOLLOW
ARE EXACTLY THE SAME'

By DR VARSHA JAIN



W

omen's health in space didn't exist as a research topic in 2013, when I went along to the Aerospace Medical Association conference in Chicago—the biggest conference in the US for space medicine. My aim was to network and build up contacts to garner support for a research project. I was at the right point in my career to finally marry the topics of women's health and space medicine.

Part of my work for my master's degree was due to be showcased on the first day of the conference, but when the presentation slides went up, my name wasn't anywhere to be seen. I was devastated to have travelled all that way and find I had received no recognition but I thought, *Right, this conference is full of flight surgeons, astronauts, physicians – people who are at the top of their game in the field of space medicine.* So I put myself out there and said to anyone who would listen, 'I'm really interested in space medicine. Is there a way we can combine this with women's health?' The resounding answers were: 'That's never happened before'; 'I don't think we need that sort of research'; 'No, it's never going to happen'.

After four days of failed attempts, I got a tip that someone presenting in the final session—Dr Virginia Wotring, discipline lead of pharmacology at NASA's



**'WOMEN'S HEALTH IN SPACE AND ON EARTH
IS INEXTRICABLY LINKED'**





‘BEING INVITED INTO A CLOSED ROOM WITH UP TO 15 FEMALE NASA ASTRONAUTS WAS DEFINITELY ONE OF THE PEAK POINTS IN MY CAREER’

Johnson Space Center at the time—might be interested. I was completely disheartened by this point; I thought nobody would listen. But she said, ‘Actually, I might have a project for you.’ We sat down together after the session. She saw the potential of the work I wanted to do and we haven’t stopped since.

I was asked to investigate the safest contraceptive pill that female astronauts could use—one that would give them the lowest blood clot risk whilst in space. I knew I could have answered this question simply by looking at research that had already been done here on Earth. But if I was going to be studying female astronauts—who live and work in a very unique environment—I wanted to look specifically at female astronaut data, to make sure they had the best evidence before deciding whether or not to suppress their menstrual cycles in space.

The project was not simple at any stage. There are no regulations as to whether female astronauts should or should not use the pill—it’s a completely personal choice. They have very specific requirements: when they get selected as astronauts, they’ve got up to two years of astronaut-specific training to do. Their flight is probably six months long, but that’s small compared to all of the years of training and build-up prior to going into space. Plus, there are times during training when you’re not allowed to be pregnant—you can’t be pregnant and dive, you can’t be pregnant and a fly fighter jet planes—so the benefits of the pill are invaluable.

I wanted there to be a safer approach to women’s health in space. I think this intention came across, because I then received a message from the Astronaut Office, saying: ‘You’ve been requested to speak to the female astronauts to provide an education session

about your research.’ I was invited to meet with 15 female NASA astronauts and was trusted with providing a closed-door information session. There was no specific gynaecologist working at NASA at the time, so my role was quite unique. It’s definitely one of the peak points of my career.

There were so many pieces of red tape that I needed to go through to do my research, but women’s health in space and on Earth is inextricably linked; you have to consider the entire life cycle of what they are doing as astronauts. When we’re working here on Earth as clinicians, I think it’s easy to forget that our patients see us with a clinical problem but there’s so much going on in their lives outside of that one issue.

One in four women experience problems with heavy periods—one third of these women need a hysterectomy because the right medication doesn’t exist for their health problems. That’s a huge proportion of today’s workforce. If we could provide women with more education about their menstrual health, for example, we’d be breaking barriers and really supporting women to get to places we’ve not seen them before.

Whether it’s a regular patient who sees me in the clinic or a female astronaut, the principles I follow are exactly the same. That’s where my current research into the reasons why women suffer from heavy periods comes in. I’m trying to find what the optimal treatment programmes are, so we can treat women before their heavy periods impact multiple aspects of their lives and so women can be the people that they want to be. ■

Dr Varsha Jain works at the MRC Centre for Reproductive Health and her research is funded by Wellbeing of Women



