

# Hariharan Subbiah Ponniah

## EDUCATION

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**MBBS, Imperial College London | Sep 2018 - Present**

**BSc (Intercalated) Medical Sciences with Surgical Design, Technology and Innovation (First Class Honours), Imperial College London | Aug 2021 - Aug 2022**

## PRIZES

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**Merit in Obstetrics and Gynecology - Year 5 | Jun 2023**

**Surgical Design, Technology and Innovation BSc Prize | Jul 2022**

- Awarded for Best Overall Performance in BSc Surgical Design, Technology and Innovation

**Imperial College Dean's List | Jul 2022**

- Recognized for being in the top 10% of the year group with an overall program performance above 70%

**Distinction in Year 3 Written Paper | Sep 2021**

**Director of Clinical Studies Award | Nov 2020**

- Recognized for outstanding performance during the first clinical placement

**Poster Prize (RCSEd) | Nov 2019**

- First Prize at a National Conference for a poster on hip arthroplasty documentation audit. Conference: 'The Perioperative Practitioner: Reshaping the Surgical Team: Integration of the Non-Medical Practitioner into Surgery'

**Distinction in Medicine - Year 1 | Jun 2019**

## RESEARCH

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### Publications:

- Logishetty K, Edwards TC, **Subbiah Ponniah H**, Ahmed M, Liddle AD, Cobb J, et al. How to prioritize patients and redesign care to safely resume planned surgery during the COVID-19 pandemic. *Bone & Joint Open*. 2021; 2(2): 134-140. doi: doi:10.1302/2633-1462.22.BJO-2020-0200.R1.
- Naruka V, Arjomandi Rad A, **Subbiah Ponniah H**, Francis J, Vardanyan R, Tasoudis P, et al. Machine learning and artificial intelligence in cardiac transplantation: A systematic review. *Artificial Organs*. 2022; 46(9): 1741-1753. doi: <https://doi.org/10.1111/aor.14334>.
- **Ponniah HS**, Shah V, Rad AA, Vardanyan R, Miller G, Malawana J. Theatres without borders: a systematic review of the use of intraoperative telemedicine in low- and middle-income countries (LMICs). *BMJ Innovations*. 2021; 7(4): 657-657. doi: 10.1136/bmjinnov-2021-000837.
- Quake SYL, Khoda F, Arjomandi Rad A, **Subbiah Ponniah H**, Vardanyan R, Frisoni P, et al. The Current Status and Challenges of Prehospital Trauma Care in Low- and Middle-Income Countries: A Systematic Review. *Prehospital Emergency Care*. 2023: 1-11. doi: 10.1080/10903127.2023.2165744.
- Thavarajasingam SG, El-Khatib M, Vemulapalli KV, Ramsay DSC, **Ponniah HS**, Fernandes RT, et al. Inadequacies in iNPH diagnosis: envisioning a paradigm shift towards integrated, multi-modal testing, and consensus-driven research for improved patient outcomes. *Acta Neurochirurgica*. 2023. doi: 10.1007/s00701-023-05754-9.
- Thavarajasingam SG, **Subbiah Ponniah H**, Philipps R, Neuhoff J, Kramer A, Demetriades AK, et al. Increasing incidence of spondylodiscitis in England: An analysis of the national health service (NHS) hospital episode statistics from 2012 to 2021. *Brain and Spine*. 2023; 3: 101733-101733. doi: <https://doi.org/10.1016/j.bas.2023.101733>.
- Arjomandi Rad A, **Subbiah Ponniah H**, Shah V, Nanchahal S, Vardanyan R, Miller G, et al. Leading Transformation in Medical Education Through Extended Reality. In: Border S, Rea PM, Keenan ID, (eds.) *Biomedical Visualisation: Volume 16 – Digital Visualisation in Biomedical Education*. Cham: Springer International Publishing; 2023. p. 161-173.
- Thavarajasingam SG, Vemulapalli KV, Vishnu K S, **Ponniah HS**, Vogel AS, Vardanyan R, Neuhoff J, Kramer A, Shiban E, Ringel F, Demetriades AK, Davies BM. Conservative versus early surgical treatment in the management of pyogenic spondylodiscitis: a systematic review and meta-analysis. *Sci Rep*. 2023 Sep 20;13(1):15647. doi: 10.1038/s41598-023-41381-1.
- Arjomandi Rad A, Fleet B, Zubarevich A, Nanchahal S, Naruka V, **Subbiah Ponniah H**, Vardanyan R, Sardari Nia P, Loubani M, Moorjani N, Schmack B, Punjabi PP, Schmitto J, Ruhparwar A, Weymann A. Left ventricular assist device implantation and concomitant mitral valve surgery: A systematic review and meta-analysis. *Artif Organs*. 2023 Oct 12. doi: 10.1111/aor.14659. Epub ahead of print.
- Noar AP, Jeffery HE, **Subbiah Ponniah H**, Jaffer U. The aims and effectiveness of communities of practice in healthcare: A systematic review. *PLoS One*. 2023 Oct 10;18(10):e0292343. doi: 10.1371/journal.pone.0292343.

## Presentations

### Oral:

- Machine learning can predict difficulty in anterior approach total hip arthroplasty, to improve patient safety and surgical training | **European Orthopaedic Research Society 2023**
- Conservative versus early surgical treatment in the management of pyogenic spondylodiscitis: a meta-analysis | **BritSpine 2023**
- Unlocking educational and patient benefits from a wellbeing programme anchored in behavioural science | **AMEE 2022**
- 'Project Restart': Safe resumption of elective orthopaedic surgery following the Covid-19 pandemic | **National Research Collaborative Meeting Conference 2020**
- 'Getting It Right First Time' improving documentation of total knee arthroplasty with new national guidelines | **RSM FOSC 2019**

### Poster:

- Survivorship and Risk Factors for Revision in Metal-on-Metal Hip Resurfacing: A Comprehensive Long-term Study | **European Orthopaedic Research Society 2023**
- Machine learning can predict difficulty in anterior approach total hip arthroplasty, to improve patient safety and surgical training | **BHS Annual Scientific Meeting 2023**
- Analysing Student Perceptions from a Virtual Case-based Learning Trauma Medicine and Surgery Conference with Recommendations for Future Application | **AMEE 2022**
- Plastics Skills Day: Evaluating the Effectiveness of an In-Person Conference in Improving the Knowledge and Diversity of Surgical Skills of Medical Students and Junior Doctors Post-COVID-19 | **RSM APRAS 2022**
- Endovascular Versus Open Surgical Repair for Unruptured Infrarenal Abdominal Aortic Aneurysm: A Critical Summary of Randomised Controlled Trials | **ASiT Innovation Summit 2022**
- The Effectiveness of a One-Day Conference in Improving Knowledge in Revision Surgery and Post- Operative Infection in Trauma & Orthopaedics | **ASiT Innovation Summit 2022**
- Evaluating the effectiveness of virtual sessions as a modality of teaching musculoskeletal examinations | **JASME 2022**
- Exploring medical student perceptions on soft tissue orthopaedics | **BOA Annual Congress 2022**
- How to prioritise patients and safely resume elective surgery during the Covid-19 pandemic | **ASiT x MedAll Conference 2020**
- 'Getting It Right First Time' improving documentation of total hip arthroplasty with new national guidelines | **RCSEd Perioperative Conference 2019**

## LEADERSHIP AND MANAGEMENT ROLES

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### RSM Student Section Council Representative | Sep 2022 – Present

- Heading various academic initiatives, including teaching series, essay competitions, and lectures as part of the academic team.

### Imperial Representative at British Orthopaedic Medical Students Association | Sep 2021 – Sep 2022

- Orchestrated conferences, talks, and educational series and impactful social media campaigns to enhance orthopaedics education and collaboration within London.

### Future Surgeons Forum at the Royal College of Surgeons of England | Aug 2021 – Aug 2022

- Represented my university's surgical society within this RCS-established student committee, sharing best practice, and discussing challenges encountered upon embarking on the early stages of a surgical career.

### President of the Imperial Surgical Society | Aug 2021 – Aug 2022

- Elected as the 2021/22 President for Imperial College Surgical Society - one of the largest and most active academic medical societies nationally, leading a team of 45 to inform and promote a career in surgery as well as facilitate extracurricular surgical training.

### STARSurg Regional Lead | Aug 2020 – Aug 2021

- Selected as a regional lead for STARSurg - a national, student-led audit and research network. Responsible for leading the national projects in my region and promoting engagement with surgery and academia.

## TEACHING EXPERIENCE

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### Junior Anatomy Series Tutor | Mar 2021

- Delivered teaching of anatomy to pre-clinical undergraduate medical students.

### Essential Orthopedics Teaching | Jan 2022 - Apr 2022

- Collaborated with local educators and medical colleagues around London to design, organize, and host a regional teaching program titled 'Essential Orthopaedics', consisting of 17 virtual sessions.

### RSM Student Section Surgery for Medical Student Series | Jan 2023 - Apr 2023

- Worked with national educators and medical colleagues around the UK to design, organize, teach, and host a national teaching program titled 'Section Surgery for Medical Student Series', comprising 7 virtual sessions.