**Name:**  Richard Brown

**Qualifications:** MBBS, BSc (Hons), MRCS, DOHNS

**Job title:** Otolaryngology registrar

**Profile:**

After completing medical training at Barts and The London I worked as a junior doctor in Glasgow for two years before taking up an anatomy demonstrator post at Bristol University. My Core surgical training was in Bristol Royal Infirmary, in 2019 I was accepted onto the All-Wales Otolaryngology Higher Surgical training programme. Whilst working as an otolaryngology registrar in Wrexham I was fortunate to be able to develop my research portfolio further by completing an MRes in Applied Biomedical Sciences under the supervision of Professors Arvind Arya and Stephen Hughes. As part of this work, I am currently undertaking research on the development of serum biomarkers for early differentiated Thyroid Cancer. I am also interested in ENT humanitarian projects and travelled to Mekelle, Ethiopia in 2019 with Dr. Richard Wagner MD as part of Global ENT Outreach (GEO) charity.

**Current Research interests:**

My current research is in the identification of serum biomarkers that could help detect early differentiated (papillary and follicular) thyroid cancer. The usual presenting complaint of thyroid cancer is a nodule arising from the thyroid gland but these are often benign and found in almost 50% of the population over 50 years. Currently, fine needle aspiration biopsy (FNAB) remains the gold standard for detecting thyroid cancer although 25% of these biopsies render an indeterminate cytology. These patients often require invasive surgery in the form of a diagnostic thyroidectomy to exclude cancer with the risks of haemorrhage, vocal cord palsy and hypocalcaemia. After surgery many patients are subsequently found to have a benign nodule. The development of a highly sensitive and specific biomarker, or panel of biomarkers, could therefore revolutionise the diagnosis and management of differentiated thyroid cancer. Specifically, I am looking into whether matrix metalloproteinases (MMPs) could be used as biomarkers for this purpose.

**Latest publications (2020-date) or last 5**

1. Saud, Z. Arya, A., Brown, R et al. The SARS-CoV2 envelope is distinct from host membranes, exposes pro-coagulant lipids, and can be inactivated in vivo by surfactant-containing oral rinses. medRxiv 2022.02.16.22270842 (2022) doi:10.1101/2022.02.16.22270842.

2. Ojha, S., Brown, R., Henderson, A., Toll, E., Gaskin, J., Saunders, M. Paediatric unilateral tonsillar enlargement: do we need to perform a tonsillectomy? Conference paper: European Society of Paediatric Otolaryngology (ESPO): Marseille, France (2021).

3. COVIDTrach collaborative. COVIDTrach; the outcomes of mechanically ventilated COVID-19 patients undergoing tracheostomy in the UK: Interim Report. Br. J. Surg. **107**, e583–e584 (2020).

4. Osanlou, O. Brown, R et al. 188 Enhancing junior doctor leadership and management skills as innovation fellows. BMJ Lead. **4**, A71 (2020).

5. Brown, R., Wagner, R et al. Assessment of cortical Mastoidectomy competence in Ethiopian otolaryngology surgical residents in Mekelle, Ethiopia. Poster: ENT-UK Annual conference, London, UK (2019).

***QR link to my Open Researcher & Contributor ID (ORCID):***

0000-0001-8182-7314