

BRIEF CURRICULUM VITAE for Professor Qasim Aziz

Qualifications (state subject, class of degree with University dates)

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| 1990 | M.R.C.P. (U.K), |
| 1996 | Ph.D. (University of Manchester, UK). |
| 2002 | F.R.C.P. (U.K.) |

Employment History (including career breaks where relevant)

(give dates and details of position held including the nature of current employment, can include information on any career breaks as will be taken into account in assessment process)

Current employment:

December 2006 – present: Professor of Neurogastroenterology, Wingate Institute of Neurogastroenterology, Barts and the London School of Medicine and Dentistry, Queen Mary College, University of London UK.

Clinical Resume

1. February 1991-January 1993: North West Regional Health Authority, Clinical Research Fellow, Department of Medicine, Hope Hospital. Supervisor: Professor D G Thompson.
2. February 1993-November 1994: British Digestive Foundation Research Training Fellow, Department of Medicine, Hope Hospital, Manchester. Supervisor: Professor D G Thompson.
3. December 1994 - June 1998: Clinical Lecturer/Honorary Senior Registrar in Medicine/Gastroenterology. Department of Medicine, Hope Hospital, Manchester.
4. June 1998 - 2002 Medical Research Council, Clinician Scientist Fellowship. Institute of Psychiatry, London. Senior Lecturer, Manchester University. Honorary Consultant Gastroenterologist, Hope Hospital Salford.
5. June 2002 – September 2004 Senior Lecturer, Manchester University/Honorary Consultant Gastroenterologist, Hope Hospital Salford.
6. October 2004 – December 2006 Professor of Gastroenterology, Manchester University/Honorary Consultant Gastroenterologist, Hope Hospital Salford.

Selected publications in last 5 years

- 1: Treede RD, Rief W, Barke A, Aziz Q, Bennett MI, Benoliel R, Cohen M, Evers S, Finnerup NB, First MB, Giamberardino MA, Kaasa S, Korwisi B, Kosek E, Lavand'homme P, Nicholas M, Perrot S, Scholz J, Schug S, Smith BH, Svensson P, Vlaeyen JWS, Wang SJ. Chronic pain as a symptom or a disease: the IASP Classification of Chronic Pain for the International Classification of Diseases (ICD-11). Pain. 2019 Jan;160(1):19-27. doi: 10.1097/j.pain.0000000000001384. PMID: 30586067.
- 2: Ruffle JK, Farmer AD, Aziz Q. Artificial Intelligence-Assisted Gastroenterology- Promises and Pitfalls. Am J Gastroenterol. 2019 Mar;114(3):422-428. doi: 10.1038/s41395-018-0268-4. PMID: 30315284.
- 3: Mayer EA, Labus J, Aziz Q, Tracey, Kilpatrick L, Elsenbruch S, Schweinhardt P, Van Oudenhove L, Borsook D. Role of brain imaging in disorders of brain-gut interaction: a Rome Working Team Report. Gut. 2019 Sep;68(9):1701-1715. doi: 10.1136/gutjnl-2019-318308. Epub 2019 Jun 7. PMID: 31175206; PMCID: PMC6999847.
- 4: Aziz Q, Giamberardino MA, Barke A, Korwisi B, Baranowski AP, Wesselmann U, Rief W, Treede RD; IASP Taskforce for the Classification of Chronic Pain. The IASP classification of chronic pain for ICD-11: chronic secondary visceral pain. Pain. 2019 Jan;160(1):69-76. doi: 10.1097/j.pain.0000000000001362. PMID:30586073.
- 5: Ruffle JK, Coen SJ, Giampietro V, Williams SCR, Aziz Q, Farmer AD. Preliminary report: parasympathetic tone links to functional brain networks during the anticipation and experience of visceral pain. Sci Rep. 2018 Sep 7;8(1):13410. doi: 10.1038/s41598-018-31522-2. PubMed PMID: 30194351; PubMed Central PMCID: PMC6128833.
- 6: Aktar R, Peiris M, Fikree A, Cibert-Goton V, Walmsley M, Tough IR, Watanabe P, Araujo EJA, Mohammed SD, Delalande JM, Bulmer DC, Scott SM, Cox HM, Voermans NC, Aziz Q, Blackshaw LA. The extracellular matrix glycoprotein tenascin-X regulates

peripheral sensory and motor neurones. *J Physiol*. 2018 Sep;596(17):4237-4251. doi: 10.1113/JP276300. Epub 2018 Jul 18. PubMed PMID: 29917237; PubMed Central PMCID: PMC6117562.

7: Ruffle JK, Patel A, Giampietro V, Howard MA, Sanger GJ, Andrews PLR, Williams SCR, Aziz Q, Farmer AD. Functional brain networks and neuroanatomy underpinning nausea severity can predict nausea susceptibility using machine learning. *J Physiol*. 2019 Mar;597(6):1517-1529. doi: 10.1113/JP277474. Epub 2019 Feb 27. PubMed PMID: 30629751; PubMed Central PMCID: PMC6418775.

8: Aktar R, Peiris M, Fikree A, Eaton S, Kritas S, Kentish SJ, Araujo EJA, Bacarin C, Page AJ, Voermans NC, Aziz Q, Blackshaw LA. A novel role for the extracellular matrix glycoprotein-Tenascin-X in gastric function. *J Physiol*. 2019 Mar;597(6):1503-1515. doi: 10.1113/JP277195. Epub 2019 Jan 23. PubMed PMID: 30605228; PubMed Central PMCID: PMC6418764.

9: Ruffle JK, Coen SJ, Giampietro V, Williams SCR, Apkarian AV, Farmer AD, Aziz Q. Morphology of subcortical brain nuclei is associated with autonomic function in healthy humans. *Hum Brain Mapp*. 2018 Jan;39(1):381-392. doi: 10.1002/hbm.23850. Epub 2017 Oct 28. PubMed PMID: 29080228.

10: Aziz Q, Fass R, Gyawali CP, Miwa H, Pandolfino JE, Zerbib F. Functional Esophageal Disorders. *Gastroenterology*. 2016 Feb 15. pii: S0016-5085(16)00178-5. doi: 10.1053/j.gastro.2016.02.012. [Epub ahead of print] PubMed PMID: 27144625.

11: Farmer AD, Ban VF, Coen SJ, Sanger GJ, Barker GJ, Gresty MA, Giampietro VP, Williams SC, Webb DL, Hellström PM, Andrews PL, Aziz Q. Visually induced nausea causes characteristic changes in cerebral, autonomic and endocrine function in humans. *J Physiol*. 2015 Mar 1;593(5):1183-96. doi: 10.1113/jphysiol.2014.284240. Epub 2015 Jan 29. PubMed PMID: 25557265; PubMed Central PMCID: PMC4358679.

12. Botha C, Farmer AD, Nilsson M, Brock C, Gavrilu AD, Drewes AM, Knowles CH, Aziz Q. Preliminary report: modulation of parasympathetic nervous system tone influences oesophageal pain hypersensitivity. *Gut*. 2015 Apr;64(4):611-7. doi: 10.1136/gutjnl-2013-306698. Epub 2014 May 28. PubMed PMID: 24870622.

13. Aziz Q. Brain-gut interactions in the regulation of satiety: new insights from functional brain imaging. *Gut*. 2012 Nov;61(11):1521-2. Epub 2012 Jun 3. Review. PubMed PMID: 22661493.

14. Van Oudenhove L, McKie S, Lassman D, Uddin B, Paine P, Coen S, Gregory L, Tack J, Aziz Q. Fatty acid-induced gut-brain signaling attenuates neural and behavioral effects of sad emotion in humans. *J Clin Invest*. 2011 Aug;121(8):3094-9. doi: 10.1172/JCI46380. Epub 2011 Jul 25. PubMed PMID:21785220; PubMed Central PMCID: PMC3148741.

NOTE

- I have published >200 peer reviewed manuscripts. Including in Nature Medicine, Nature Neuroscience, Lancet, Gastroenterology and Gut. Please see pubmed list for full publication record: <https://pubmed.ncbi.nlm.nih.gov/?term=Aziz+q>
- My H Index is 65 <https://scholar.google.co.uk/citations?user=oNquLNQAAAAJ&hl=en>

(Other outcomes and achievements arising from your research, eg,)

Research Prizes

1. American Gastroenterology Association, Janssen Award in Basic Science and Clinical Research, 2000.
2. British Society of Gastroenterology, Sir Francis Avery Jones, Research Gold Medal, 1998.
3. Functional Brain – Gut Group, American Gastroenterology Association, Young Investigator Award. 1998

Impact

I have taken national and international leadership in managing a high quality service for patient benefit.

1) As member of Rome IV Criteria Team I led the development of a new category of gastro-oesophageal reflux disease called 'Reflux Hypersensitivity'. These are patients who experience symptoms despite normal endoscopy and 24 hour pH testing but experience symptoms due to physiological reflux. I developed the new management strategy for managing these patients and this is incorporated in the ROME IV diagnostic criteria of Esophageal Disorders of which I was first author (*Gastroenterology* 2016).

II) Patients frequently report that they find the term 'Functional' quite derogatory as it implies 'not real'. As co-chair of a working party of *International Association of Study of Pain* to develop ICD-11 codes for visceral pain, I strongly advocated the dropping of the term 'Functional Pain' which has now been accepted and Functional Pain Disorders will now be classified at Primary Pain Disorders (Published Pain 2019) and will be reflected in ICD-11 codes. This has international implications.

NATIONAL/INTERNATIONAL EDUCATION ROLES

- As chair of International Association of Study of Pain Abdominal and Pelvic Pain Special Interest Group 2016-18, I organized the abdominal and pelvic pain symposium for the world congress of pain in 2018 in Boston and gave a talk at the postgraduate training course.
- As Chair I initiated the planning for the 2019 World Congress on Abdominal and Pelvic Pain (London May 2019).
- Due to lack of proper training in neurogastroenterology in the national curriculum for trainees, I have organized a 'Problem Based' Training Course in Neurogastroenterology with funding from UEG for trainees in April 2019.
- In the last 3 years I have given state of art and key note lectures for the BSG and AGA and average give 12-15 invited lectures around the world. My feedback is always very good to excellent.

Recent Research Achievements

I obtained >£5M funding as co-PI which includes EU FP7 ITN & Innovative Medicines Initiative Grant, NIHR EME and programme grants. In the last 5 years I have published >60 peer reviewed articles & 5 clinical guidelines; supervised 5 PhD students to completion; IP protection for novel device for motion sickness & pain is in progress and my team received MedTech SuperConnector Funding to accelerate device development for anxiety and gut symptoms. I have identified biomarkers for visceral pain & advanced pathophysiology of functional gut disorders.

External Grant Awards

1. ONO pharma clinical trial: PI Double blind randomised study to assess whether ONO-8539 is able to reduce oesophageal pain threshold following electrical stimulation of the oesophagus in healthy subjects. £500,000 2013-2014
2. PROTEXIN Pharmabiotic: Healthy human trial assessing four different strains of lactobacilli/bifidobacteria for survival through the human gut. Funded : £ 135K
3. ONO pharma clinical trial: Co-PI. Double blind randomised study to assess whether ONO-8539 is able to reduce oesophageal hypersensitivity in NERD patients. £500,000 2013-2014.
4. NeuroGut— European Training in Neural Regulation of Intestinal Function; FP7-PEOPLE-2013-ITN. Marie Curie Actions— Initial Training Networks (ITN). Co PI for UK (Total funding €3.6M).
5. BBSRC: PhD Studentship: Study of gut motility and autonomic response to nutrients using MRI. £79,967.00. 2016-2019
6. National Institute of Health Research (NIHR) – Efficacy Mechanism Evaluation Grant: A randomised, placebo controlled trial to determine the efficacy and mode of action of ondansetron in the treatment of irritable bowel syndrome with diarrhea. Co-PI (Total funding: £2,323,053.94). 2018-2021
7. National Institute of Health Research (NIHR) - Programme Grant: Living well with inflammatory bowel disease: optimising management of symptoms of fatigue, abdominal pain, and faecal urgency/incontinence via tailored online self-management: the IBD-BOOST programme. Co-PI (Total funding: £2233960.00): 2017-2022
8. Bowel and Cancer Research: PhD Studentship: Study of the prevalence, healthcare utilisation, symptoms and psychophysiological profile of patients with overlap between Irritable Bowel Syndrome and hypermobile Ehlers-Danlos Syndrome. £75,000. 2018-2021.PI
9. Wingate Foundation. Funding for Clinical Trials Nurse: £60K: 2018-20
10. MedTech Super Connector Grant. Novel device for management of nausea and pain. £60K. 2020-2021
11. Crohns and Colits UK. £112K. Mechanisms of visceral pain in Inflammatory Bowel Disease. 2020-2023

£'000

12. Ehlers-Danlos Society UK. £200K. Dietary management of patients with EDS. £210K. 2020-2022	