



Briefing for the Public Petitions Committee

Petition Number: [PE1597](#)

Main Petitioner: Bill Welsh

Subject: Mycoplasma Fermentans in Regressive Autism

Calling on the Scottish Parliament to urge the Scottish Government to commission a properly conducted controlled study (which recognises the intracellular nature of the pathogen) into the presence and role of Mycoplasma Fermentans in regressive autism.

Background

In September 2015 the petitioner published a paper, "[Mycoplasma Fermentans and Deciliation as a Precursor to Regressive Autism](#)", in the Swift Journal of Medicine and Medical Sciences (SJMMMS). The paper proposes that Mycoplasma Fermentans, a very small bacterium, could possibly be a potential causal factor for autism, and that vaccination (primarily the MMR vaccine) is one likely conduit for how the bacteria comes to be in children.

During Sessions One and Two of the Parliament, the petitioner submitted four petitions related to Autism. These concerned the link between the MMR vaccine and autism; the prevalence of inflammatory bowel disease and other bowel disorders in autistic children; the establishment of an independent 'scientific think tank' to assess and advise on scientific, medical and other breakthroughs now emergent worldwide in the treatment of autistic spectrum disorder and for the establishment of a public inquiry into why an epidemic of the previously very rare childhood condition 'autism' has been overlooked by public health officials. More detail on these is provided below.

What is Mycoplasma Fermentans?

Mycoplasma Fermentans is a species of the Mycoplasma bacteria group. It is a small bacterial infection which, due to an absence of cell walls around the bacteria, is resistant to many antibiotics.

What is Autism?

According to Autism Network Scotland, autism is:

“...a lifelong developmental condition. People with autism tend to have a wide range of skill sets including different strengths and difficulties, however autism is characterised by a triad of impairments and people typically find challenges with:

- social interaction
- social imagination
- communication

People with autism also tend to share common traits such as sensory sensitivity, repetitive and stereotyped behaviours and special interests. Autism can also be associated with physical difficulties and it is recognised that there can be a vulnerability to mental health and wellbeing. Some people with autism may also have learning difficulties like dyslexia and other conditions like dyspraxia or epilepsy.”¹

The National Autistic Society suggests that it is believed that around 700,000 people in the UK may be autistic, equating to more than 1 in 100 of the population. However, it states that calculating actual numbers is challenging:

“There is no register or exact count kept. Any information about the possible number of people with autism in the community must be based on epidemiological surveys (i.e. studies of distinct and identifiable populations).”²

The link between Mycoplasma Fermentans and Autism

The petitioner’s research considers that there has been a large increase in the number of children diagnosed with autism since the 1980’s and that the increase in the numbers diagnosed will continue. The petitioner argues that the increasing prevalence of autism will also lead to increasing financial costs of supporting those with autism.

The petitioner argues that one possible reason for this “autism epidemic” is vaccination and in particular the MMR vaccine.

Other organisations such as the National Autistic Society have cited sources which suggest the increasing prevalence of autism is likely to be because of broadening diagnostic criteria, diagnostic switching, service availability and awareness of Autism Spectrum Disorder among professionals and the public³.

The petitioner has asked that the Scottish Government funds a properly conducted controlled study into the presence and role of Mycoplasma Fermentans in regressive autism.

¹ <http://www.autismnetworkscotland.org.uk/what-is-asd/>

² <http://www.autism.org.uk/about/what-is/myths-facts-stats.aspx>

³ Elsabbagh, M. et al (2012) Global prevalence of autism and other pervasive developmental disorders. *Autism Research*, 5 (3), pp.160-179. Available at: <http://onlinelibrary.wiley.com/doi/10.1002/aur.239/pdf>

Scottish Government Funded Health Research

The Chief Scientist's Office (CSO) sits within the Scottish Government Health Directorates. The CSO's vision "is to support and increase the level of high-quality health research conducted in Scotland"⁴ The role is not to be confused with the Office of the Chief Scientific Adviser for Scotland which supports the work of the Chief Scientific Adviser for Scotland whose role is to provide strong leadership on science in the Scottish Government.⁵

The CSO does not invite tenders for specific research proposals; instead it invites bids for funding through what is known as the [Researcher Initiated Grant Schemes](#). The CSO then provides the funding to those whose research proposals are successful. To be eligible for funding from the Researcher Initiated Grant Schemes, the Chief Investigator (the person who takes overall responsibility for the design, conduct and reporting of a study) "must be a permanent salaried member of staff at a Scottish Higher Education Institution or NHS Board, or have a contract with a Scottish HEI or NHS Board that extends at least 2 years beyond the expected end-date of any submitted proposal".

Within the Researcher Initiated Grant Schemes, the Chief Scientists Office runs [two response mode funding committees](#) which consider the applications for research funding. These are the Translational Clinical Studies Research Committee and the Health Improvement, Protection and Services Research Committee. These Committees meet twice a year and proposals are subject to an external peer review process.

The CSO also operates within the wider landscape of UK health research funding and contributes to a [National Institutes for Health Research](#) (NIHR) total funding pool in excess of £100m annually. This allows Scottish-based researchers to apply for the majority of the research programmes administered by the NIHR Evaluation, Trials and Studies Coordinating Centre (NETSCC). It is open for anybody to submit an application to the NIHR.

Scottish Government Action on Autism

The Scottish Government published the [Scottish Strategy for Autism](#) in 2011. The document sets out "the development of a national 10 year autism strategy that addresses the entire autism spectrum and the whole lifespan of people living with ASD in Scotland".

Theme 5 of the Strategy relates to research. Specifically it states that the Autism Spectrum Disorder Reference Group had agreed to fund a retrospective study of a consecutive series of those who have been diagnosed at the Scottish Centre for Autism. It does not appear that the research provided any conclusions about the causes of autism.

⁴ <http://www.cso.scot.nhs.uk/>

⁵ <http://www.gov.scot/About/People/Directorates/ChiefScientificAdvisor>

According to the Strategy, the Scottish Government held a conference in November 2005 to focus on developments and research in relation to health and autism and to disseminate research findings to health and social care professionals.

Annex 2 of the Strategy addresses prevalence and incidence of autism. In it, the Scottish Government states:

There is no one single explanation of why more people appear to be diagnosed with the condition. It is probable that a mix of factors is coming into play including increasing public and professional awareness, improved diagnosis, wider diagnostic criteria or a combination of all the above.”⁶

Scottish Parliament Action

In March 2000, the Petitioner submitted a petition to the Scottish Parliament’s Public Petitions Committee (PE145) calling for the Scottish Parliament to take a range of actions with regard to medical conditions arising from vaccinations. The Committee passed the petition to the Health and Community Care Committee for further consideration. The Health and Community Care Committee agreed to contact the Scottish Government to request comment on the petition and also request that further action investigation be conducted to determine if there was a link between the vaccination and autism⁷.

The Scottish Government subsequently published a [report of an expert group established to investigate any relationship between the MMR vaccine and autism](#). The Scottish Government’s expert group concluded that the current scientific evidence at the time did not support the hypothesised link between the MMR vaccine and autism.

In 2004, the Petitioner submitted three further petitions to the Scottish Parliament’s Public Petitions Committee (PE792, PE793 and PE794).

PE792 called on the Scottish Parliament to “inform the parents of children in school and pre-school in Scotland of the research findings of various paediatric scientists who have identified inflammatory bowel disease and other bowel disorders in many autistic children, and to ensure that their children are entitled to free gastro-enterological investigation and treatment”.

PE793 called on the Scottish Parliament to “urgently set up an independent 'scientific think tank' to assess and advise on scientific, medical and other breakthroughs now emergent worldwide in the treatment of autistic spectrum disorder, bringing into the forum independent scientists and experts with knowledge of all innovative developments in the way this previously enigmatic condition is being addressed”.

⁶

http://www.autismstrategyscotland.org.uk/index.php?option=com_docman&Itemid=&gid=41&lang=en&task=doc_download

⁷ <http://archive.scottish.parliament.uk/business/petitions/docs/PE145.htm>

PE794 called on the Scottish Parliament to “set up an urgent independent public inquiry into why an epidemic of the previously very rare childhood condition 'autism' has been overlooked by public health officials, an oversight which may have unnecessarily condemned thousands of innocent children to years of pain, distress and confusion”.

The Public Petitions Committee agreed to pass copies of petitions PE792, PE793 and PE794 to the Health Committee for information only and to take no further action on the petitions.

Iain McIver
Senior Research Specialist
19 January 2016

SPICe research specialists are not able to discuss the content of petition briefings with petitioners or other members of the public. However if you have any comments on any petition briefing you can email us at spice@scottish.parliament.uk

Every effort is made to ensure that the information contained in petition briefings is correct at the time of publication. Readers should be aware however that these briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

Published by the Scottish Parliament Information Centre (SPICe), The Scottish Parliament, Edinburgh, EH99 1SP www.scottish.parliament.uk