Translational and Clinical Research Institute
Newcastle University
c/o Paediatric Immunology
Clinical Resources Building Level 4, Block 2
Royal Victoria Infirmary
Newcastle upon Tyne
NE1 4LP

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Dear ESID members,

Hyper-immunoglobulin E syndrome (HIES) due to dominant-negative mutations in signal transduction and activator of transcription 3 (STAT3-HIES), previously Job's syndrome, is an inborn error of immunity characterised by eczema, recurrent staphylococcal and fungal skin and pulmonary infection and a number of extra-immune manifestations including minimal-trauma fractures, vascular ectasia, and lymphoma.

While significant advances in the understanding of this syndrome have been made since the initial description in 1966, including investigation of its genetic aetiology, immunopathology and clinical features, there remain significant gaps in our knowledge including the spectrum of severity of clinical manifestations such as abnormal vasculature and how therapeutic options such as antimicrobial prophylaxis, immunoglobulin replacement and allogeneic haematopoietic stem cell transplantation modify these to impact on natural history and quality of life.

In conjunction with Great Ormond Street Hospital, London, UK and the National Institutes of Health, Bethesda, USA, we seek to gather the largest dataset of STAT3-HIES patients to date to better delineate clinical and immunological features and invite patients to answer self-reporting questionnaires on quality of life and psychological health.

We would like to expand this by requesting any data held on the ESID registry for patients treated at your centres, and to invite you to contribute further detailed data on this cohort, which we are collecting through a REDCap questionnaire. We would be interested in additional data on any patients who have undergone allogeneic stem cell transplantation for STAT3-HIES, in order to explore its role in this condition. We have recently published a series of 8 patients transplanted for STAT3-HIES (1), as well as an updated review in conjunction with Professor Freeman at the NIH (2).

We believe this study will provide a detailed and updated description of this syndrome, its various manifestations and how our standard treatment options impact these in order to inform future definitive work.

If you require any further clarification or information, please do not hesitate to contact us.

With best wishes,

Dr Christo Tsilifis

Clinical Research Associate in Paediatric Immunology & HSCT
Newcastle University, Newcastle upon Tyne, UK
Email: c.tsilifis@nhs.net

Professor Andrew Gennery

Professor and Honorary Consultant in Paediatric Immunology & HSCT
Newcastle University, Newcastle upon Tyne, UK
Email: andrew.gennery@ncl.ac.uk

1. Harrison SC, Tsilifis C, Slatter MA, Nademi Z, Worth A, Veys P, et al. Hematopoietic Stem Cell Transplantation Resolves the Immune Deficit Associated with STAT3-Dominant-Negative Hyper-IgE Syndrome. J Clin Immunol [Internet]. 2021 Feb 1; Available from: http://link.springer.com/10.1007/s10875-021-00971-2
2. Tsilifis C, Freeman AF, Gennery AR. STAT3 Hyper-IgE Syndrome—an Update and Unanswered Questions. J Clin Immunol [Internet]. 2021 May 1;(0123456789). Available from: https://doi.org/10.1007/s10875-021-01051-1