



Abstract IDDF2019-ABS-0321 Figure 1 Three studies indicated that there is higher abundance of proteobacteria and bacteroides in autistic children with reduced population of firmicutes and actinobacteria

check, these efforts could improve intestinal and mental health, easing and reducing autistic behaviour in children.

IDDF2019-ABS-0322 **DISSECTING THE GUT AND SKIN: BUDDING ASSOCIATION BETWEEN GUT MICROBIOME IN THE DEVELOPMENT TO PSORIASIS?**

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Background Microbiome consists of normal bacteria flora that resides in the human gut and are key contributors to host metabolism. This symbiotic bond evolves throughout our entire life, from birth to old age, and is the result of different environmental influences. Recently, reports revealed dysbiosis of gut microbiome could relate to psoriasis occurrence. Psoriasis - chronic immune-mediated inflammatory disease affects around 2–4% of the global population. This systematic review aims to reveal the dysbiosis of the gut microbiome and the occurrence of psoriasis.

Methods A thorough search was conducted using predefined MeSH terms ‘gut’, ‘microbiome’ or ‘microbiota’ and ‘psoriasis’ in 3 databases (Pubmed, Medline, ScienceDirect; from database inception to December 2018). All titles and abstracts obtained were screened based inclusion and exclusion criteria. Studies reporting gut microbiome data in relation to gut microbiome effects were included. Studies without gut microbiome data and/or psoriasis were excluded along with conference abstracts, reviews, systematic reviews, meta-analyses, and comments.

Results The gut microbiome is able to control the imiquimod-induced skin inflammation by altering the T cell response, thus affects the pathogenesis of psoriasis. Studies clearly reported the dysbiosis microbiome of psoriasis patients compared to healthy persons. Psoriatic gut microbiome in a few studies revealed an increase presence of *Faecalibacterium* and a decrease of *Bacteroides*. Another study reported a high abundance of *Bacteroidia* in the microbiome of its psoriasis patients, suggesting the potential pathogen that promotes the pathogenesis of psoriasis. As one of the common normal intestinal bacteria in healthy individuals, lower levels of *Faecalibacterium prausnitzii* have been observed in patients with Crohn’s disease, obesity, metabolic syndrome and major depressive diseases. However, in psoriatic patients, *Faecalibacterium prausnitzii* have been abundant in the gut microbiota - a similar pattern seen in infants with eczema and atopic dermatitis. Probiotics containing normal flora is essential for individuals to maintain a healthy gut microbiota.