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ISTRY 2013 Special Issue

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The 13th international conference of the International Society for Tryptophan Research (ISTRY) has been held in Sydney, 7th to 9th of November 2012. It was a really successful meeting with high quality speakers and presentations. ISTRY 2013 has attracted attendees from 14 different countries—Australia, Austria, Belgium, Canada, England, France, Germany, Italy, Japan, Sultanate of Oman, Scotland, Singapore, Sweden and USA. A satellite meeting organized by the Japanese Society for Tryptophan Research (JSTRY) has been held in Brisbane on the 5th of November. This JSTRY meeting was very successful with more than 40 Japanese scientists present.

The scientific program selected was deliberately as broad as possible, to highlight the growing interest in tryptophan metabolism in different research fields. Methodology, nutrition, sleep, development, immunity, inflammation, psychiatric disorders and therapeutic strategies have been presented and discussed at this conference. Tryptophan research is progressively gaining recognition, even if probably still not fast enough, and is becoming of significant interest in many scientific disciplines. Several of the ISTRY and JSTRY presenters have submitted manuscripts related to their respective presentations to this special issue of the *International Journal of Tryptophan Research*. Dr. Murakami has demonstrated that the activity of the enzymes of the kynurenine pathway is different between species, tissue and cell types in physiological conditions, highlighting once more the importance of choosing animal models and cell types carefully to evaluate changes in the kynurenine pathway in human physiologic and pathologic conditions. Dr. Fukushima has compared the levels of tryptophan in the serum of male and female subjects. He found significantly higher levels in males, but no significant differences in the kynurenine levels or the ratio of kynurenine to tryptophan. Prof Takikawa has reviewed the latest evidence of the involvement of the kynurenine pathway in cancer, focusing on the role of kynurenine, the aryl hydrocarbon receptor and the mechanisms associated with tumor growth and immunosuppression. Dr. Fukuwatari reported that the liver plays an essential role in nicotinamide supply and demonstrated that 67 mg of tryptophan intake leads to the formation of 1 mg of nicotinamide. He also showed that the conversion ratio of tryptophan to nicotinamide is enhanced from mid to late pregnancy. Dr. Ito has studied the psychological factors influenc-

International Journal of Tryptophan Research 2013:6 (Suppl. 1)1–2

doi: [10.4137/IJTR.S12327](https://doi.org/10.4137/IJTR.S12327)

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ing the concentration of melatonin in the saliva and sleep quality. He reported that during the night, levels of salivary melatonin are higher in subjects with a depressive tendency, high-level anxiety or a neurotic personality. Dr. Blankfield has discussed how the activation of the kynurenine pathway by physical illnesses can cause neuropathic and immunological disorders associated with secondary neuropsychiatric symptoms. Dr. Poulain has described the presence of low-grade and chronic inflammation in the white adipose tissue in human obesity. She also reported a dysregulation of the tryptophan metabolism in both obese humans and mice, with one critical difference. There is a significant increase in IDO-1 expression in the adipose tissue of obese human subjects but not in obese or lean mice. These data highlight again the discrepancies between animal models and human pathology. Dr. Williams has reviewed the potential therapeutic strategies using kynurenine pathway metabolites or analogs for the treatment of rheumatoid arthritis. Administration of some of these molecules has already been tested and was able to significantly reduce both clinical and histological progression of experimental arthritis. Finally, Dr. Essa has reviewed the current insights on autism research related to oxidative stress, mitochondrial dysfunction and altered tryptophan metabolism in autism spectrum disorders.

It is noteworthy to mention that interest in the journal has been growing strongly, with more than 200,000 hits as of May 2013 (Fig. 1). This is likely due to its visibility in Pubmed. The number of individual citations of *International Journal of Tryptophan Research* has also been growing.

The 2012 Musajo Medal has been attributed to Professor Abdullah Badawy (Cardiff Metropolitan University, UK) and the recipient for the 2015 meeting will be Professor Robert Schwartz (Maryland Psychiatric Research Center, USA).

The next ISTRY meeting will take place in the United States of America in San Antonio in 2015 and will be hosted by Prof Don Dougherty. We hope that many more scientists working on tryptophan research will join ISTRY over the next three years and attend this 14th ISTRY meeting.

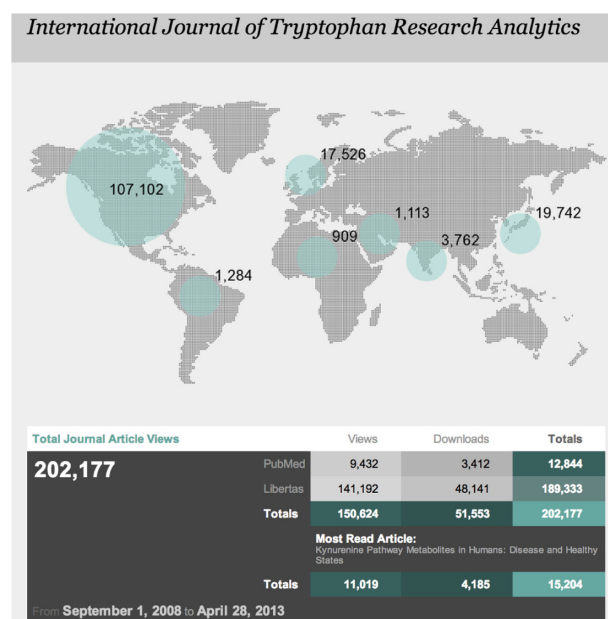


Figure 1. IJTR journal analytics, http://www.la-press.com/journal.php?pa=journal_analytics&journal_id=97, accessed 28.4.13.

Author Contributions

Wrote the first draft of the manuscript: GG. Made critical revisions and approved final version: GG. The author reviewed and approved of the final manuscript.

Funding

Author(s) disclose no funding sources.

Competing Interests

Author(s) disclose no potential conflicts of interest.

Disclosures and Ethics

As a requirement of publication the author has provided signed confirmation of compliance with ethical and legal obligations including but not limited to compliance with ICMJE authorship and competing interests guidelines, that the article is neither under consideration for publication nor published elsewhere, of their compliance with legal and ethical guidelines concerning human and animal research participants (if applicable), and that permission has been obtained for reproduction of any copyrighted material. This article was subject to blind, independent, expert peer review. The reviewers reported no competing interests.