

北醫大醫工院白台瑞副院長，榮獲國際血漿製劑協會獎（2019 IPFA award）

本校醫學工程學院副院長兼國際生醫工程博士學位學程所長白台瑞教授，於 2019 年 5 月 21 日至 24 日赴波蘭，參加國際血漿製劑協會（International Plasma Fractionation Association, IPFA）第 26 屆國際研討會，獲頒 2019 年國際血漿製劑協會獎，以表彰其對血漿分餾技術、病毒去活化與清除等相關研究領域的創新與貢獻。



此獎項為國際血漿製劑協會創會以來第二次頒予專注研究於血漿採集、分餾、血液製劑領域、致力於病人安全與照護及輸血醫學的卓越貢獻者。前次是由美國加州大學舊金山分校檢驗醫學系教授 Michael P. Busch 醫學博士於 2018 年獲獎。

白台瑞教授的研究以生物製劑之生醫工程領域為主，為新型血漿分餾和血液製程技術開發之先驅。他在生物技術方面已有傑出的成就，尤其在開發高純度血漿衍生性醫療製劑，如凝血因子和免疫球蛋白等，已大幅提升全球出血性和免疫性疾病的治療品質。此外，白教授也致力於生物工程與廣泛應用病毒去活化與清除的製程技術，以確保血液蛋白和其他生物性製劑之病毒安全性。【左圖：白台瑞副院長（中）獲頒 2019 年 IPFA 獎，為 IPFA 歷年來第二位的獲獎者】

其目前研究聚焦在製備具病毒安全性的人類血小板生長因子，應用於再生醫學和幹細胞的治療。目前已開發人類間葉基質細胞擴增培養所需的血小板裂解物製劑之病毒安全性製程，主要用於細胞治療和再生醫學應用。此外，此類製劑因富含多種生長因子，也被用於治療如帕金森氏症、肌萎縮側索硬化症、創傷性腦損傷等神經系統疾病和眼部疾病。



白台瑞教授曾擔任世界衛生組織之顧問，負責起草多項指引/建議書，包含了以下之項目：1.確保人類血漿產品病毒安全之病毒去活化與清除製程；2.血漿分餾之生產、品質管制和規範；3.血液機構之優良製造規範（GMP）；撰寫關於血漿分餾與血液製劑的程序和安全性的報告及重點概要，經由當地血液製劑生產和技術轉移的方式，用以改善發展中國家血液機構血液製劑製程之安全性。他亦擔任國際輸血協

會 (International Society of Blood Transfusion, ISBT) 「細胞療法」和「全球血液安全」工作小組的成員。【右圖：白台瑞副院長 (右 3) 與 IPFA/Paul Ehrlich Institute 國際研討會之委員 (IPFA board members) 合影】

白台瑞教授已發表了逾 250 篇期刊文章與書籍章節，探討血漿之生物製程技術相關的文獻，同時為 20 多項生醫技術領域國際專利之發明人。(文/醫學工程學院)

Source:<https://ipfa.nl/ipfa-award-2019-prof-thierry-burnouf-awarded-by-ipfa/>

IPFA Award 2019 - Professor Thierry Burnouf

Professor Thierry Burnouf, PhD, Vice-Dean of the College of Biomedical Engineering, and Director of the International PhD Program in Biomedical Engineering at Taipei Medical University has been awarded the International Plasma Fractionation Association (IPFA) Award 2019 “in recognition of his exceptional scientific contributions to new plasma fractionation technologies and programmes, and virus inactivation and removal procedures.”

This is the second time that IPFA presents an award to “recognize a person who has made exceptional contributions to the field of plasma collection, plasma fractionation, the manufacturing and provision of plasma derived medicinal products, patient care, safety and transfusion medicine.” Last year the IPFA Award 2018 was presented to Dr. Michael P. Busch, Director, and Professor of Laboratory Medicine at University of California San Francisco, USA.

Professor Burnouf’s research biomedical engineering activities related to processes for the biological therapeutic product industry are at the forefront of the development and industrial implementation of novel plasma fractionation and blood processing technologies. Among his previous achievements in industrial biotechnology are the development of highly-purified plasma derived medicinal products, including coagulation factors and immunoglobulins, which have greatly improved the quality of treatment of patients with bleeding and immunological disorders worldwide. Prof. Burnouf has also contributed to the bioengineering and widespread use of several industrial technologies of virus inactivation and virus removal procedures allowing to ensure the virus safety of blood protein products and other biologicals.

His current field of research interest focuses on bioengineering and bioprocessing of virally-safe human platelet growth factor preparations for regenerative medicine and stem cell therapy. His laboratory has developed procedures ensuring the virus safety of platelet lysates preparations needed for the propagation of human mesenchymal stromal cells for use in cell therapy and regenerative medicine applications. One of the focuses of his laboratory is also the engineering of human platelet products rich in unique mixture of growth factors for treating neurological (Parkinson’s disease, amyotrophic lateral sclerosis, traumatic brain injury, etc.) and ocular disorders.

Professor Burnouf has been a WHO temporary advisor and consultant for the drafting of several Guidelines/Recommendations on (a) “viral inactivation and removal procedures intended to assure the viral safety of human blood plasma products”, (b) “production, quality control and regulation of plasma for fractionation”, (c) “GMP in blood establishments”, as well as a report on “Improving access to safe blood products through local production and technology transfer in blood establishments in developing countries, various “Aide-Memoires” on contract plasma fractionation program and safety of blood products. He is a member of working parties on “Cellular therapies” and “Global Blood Safety” for the International Society of Blood Transfusion.

Dr. Burnouf has published over 250 articles and book chapters related to bioprocessing technologies of plasma and is an inventor of over 20 international granted patent families in the biotechnology field.

Source:<https://ipfa.nl/ipfa-award-2019-prof-thierry-burnouf-awarded-by-ipfa/>