

# **Protein and Cell Interactions with Biomaterials Are the Basis for Device Acceptance or Rejection by the Body**

Thomas Horbett

*Professor emeritus, Bioengineering and Chemical Engineering, University of Washington, Seattle, Washington*

## **Abstract**

Probably the single most important event of my scientific career was a visit to the McMaster University laboratories of Professors J. Fraser Mustard and Raelene L. Kinlough-Rathbone to learn about preparing and radiolabeling blood platelets. My visit was made possible because of the help of John Brash and Irwin Feuerstein. Many of my lab's subsequent studies involved use of platelets. So in making my presentation at this workshop in honor of John Brash, I will emphasize some of the major findings about platelets and biomaterials made in my laboratory, probably the most important of which is the ability of platelets to adhere to polymeric surfaces having even very low levels of fibrinogen adsorbed from blood plasma. In addition, at the request of Professor Sask, I will spend some time explaining the methods we developed for quantitative measurement of protein adsorption to surfaces from complex mixtures of proteins such as plasma or serum using the  $^{125}\text{I}$ - radiolabeled protein method.

## **Biography**

Professor Horbett did research and teaching in biomaterials for over 40 years at the University of Washington (UW) after receiving his PhD in biochemistry from the UW in 1970. He received many NIH grants and published many research articles related to his main research area of protein and cell interactions with biomaterials. He received the Society for Biomaterials Award (SFB) for Research in 1989 and became an SFB fellow in 1994 and an International fellow in 1996. He became a fellow of the AIMBE in 1995. In 2018, he received a Founder's Award from the SFB.

