## SENATE RESOLUTION 8676

By Senators Chase, Fraser, and Kohl-Welles

WHEREAS, Benjamin D. Hall, Professor Emeritus of Genome Sciences and Biology at the University of Washington, has served as a university faculty member since 1963; and

WHEREAS, Professor Hall is a graduate from the University of Kansas and received his doctorate in chemistry from Harvard; and

WHEREAS, During the 1970s, Professor Hall and colleagues at the University of Washington studied yeast transcription, and in 1981 Professor Hall and Dr. Gustav Ammerer, an Austrian postdoctoral fellow in Professor Hall's laboratory, developed a technique for producing genetically engineered proteins in yeast. He and his coinventors then used this yeast invention to produce Hepatitis B virus coat proteins in yeast cells; and

WHEREAS, These coat proteins formed the basis for the world's first genetically engineered vaccine against a human disease, the first vaccine against a sexually transmitted disease, and the first vaccine against a virus that leads to human cancer; and

WHEREAS, Professor Hall's work is the foundation for a vaccine for Hepatitis B, which is one of the world's most common blood-borne viruses, chronically infecting some 400 million people worldwide and one million people in the United States alone, of whom about twenty-five percent will die from cirrhosis or cancer of the liver brought on by the disease; and

p. 1 8676

WHEREAS, The vaccines made by Professor Hall's process are now routinely given to newborn babies in many countries, including the United States, Europe, and China, significantly improving the health of more than one billion people worldwide, and new infections in the United States have dropped from about 250,000 per year in the 1980s to approximately 20,000 per year today; and

WHEREAS, These patented inventions for the expression of proteins in yeast and a Hepatitis B vaccine have been licensed to commercial manufacturers and have generated for the Washington Research Foundation about 350 million dollars in royalties, which are used by the Washington Research Foundation and the University of Washington to fund additional research and development; and

WHEREAS, Professor Hall has been diligent to ensure that the University of Washington uses the royalties from the patents according to its policies to support graduate students and faculty research and has chosen to assist his grateful University of Washington by creating a new graduate fellowship for international students in the Department of Biology; and

21 WHEREAS, Professor Hall was recently elected as a fellow to 22 the prestigious National Academy of Sciences; and

WHEREAS, Professor Hall was chosen because of his distinguished and continuing achievements in original research;

NOW, THEREFORE, BE IT RESOLVED, That the members of the Washington State Senate congratulate Professor Benjamin Hall upon his election as a fellow to the National Academy of Sciences, express their deepest gratitude and appreciation for his groundbreaking contributions to the field of yeast technology and the invention of the Hepatitis B vaccine, and wish him continued success in his endeavors and a joyous tenure at the University of Washington.

- 33 I, Hunter G. Goodman, Secretary of the Senate,
- 34 do hereby certify that this is a true and
- 35 correct copy of Senate Resolution 8676,
- 36 adopted by the Senate

p. 2 8676

- 1 April 22, 2015
- 2 HUNTER G. GOODMAN
- 3 Secretary of the Senate

p. 3 8676