

Dr. Joaquín M. Espinosa – Biography

Dr. Espinosa is the Executive Director of the Linda Crnic Institute for Down Syndrome. He is also a Professor in the Department of Pharmacology at the University of Colorado Anschutz Medical Campus School of Medicine, co-Leader of the Molecular Oncology program at the University of Colorado Cancer Center, and founding Director of the Functional Genomics Facility at the University of Colorado.

Born and raised in Argentina, Dr. Espinosa was the first in his family to attend college, receiving a B.S. degree in Biology from the Universidad Nacional de Mar del Plata, Argentina, in 1994, and a Ph.D. degree in Biology from the Universidad de Buenos Aires, Argentina, in 1999. Supported by a fellowship from the PEW Charitable Trusts, Dr. Espinosa emigrated to the U.S.A. in 1999 to complete his post-doctoral training at the Salk Institute in La Jolla, California. In 2004, supported by a fellowship from the Leukemia and Lymphoma Society, he began his independent academic appointment at the University of Colorado Boulder, in the Department of Molecular, Cellular and Developmental Biology. In 2005, his twin daughters, Azul and Paloma, were born in Boulder. In 2009, his scientific achievements were recognized with an appointment to the Howard Hughes Medical Institute (HHMI). In 2014, he became an American citizen.

In 2015, Dr. Espinosa moved from the University of Colorado Boulder campus to the Anschutz Medical Campus in Aurora. He currently directs a multidisciplinary research program investigating how gene networks control cell behavior and organismal function with two main focus areas – cancer biology and Down syndrome. Dr. Espinosa's research has been funded by the National Institute of Health (NIH) since 2006, and by the National Science Foundation (NSF) since 2008. Research activities in his laboratory have also been funded by grants from the Congressionally Directed Medical Research Programs (Department of Defense), March of Dimes, American Cancer Society, Leukemia and Lymphoma Society, Cancer League of Colorado, Wings of Hope for Pancreatic Cancer Foundation, Golfers Against Cancer Foundation, Mary Miller and Charlotte Fonfara-Larose Down Syndrome and Leukemia Research Fund, Anna and John J. Sie Foundation, and Global Down Syndrome Foundation.

Since the start of his doctoral training in Argentina, Dr. Espinosa and members of his team have authored >70 peer-reviewed scientific publications, which have been cited >3600 times. Most prominent among Dr. Espinosa's scientific contributions are discoveries revealing the mechanisms of action of important cancer genes, justifying the rational design of novel combinatorial cancer therapies currently being tested in clinical trials. More recently, his team revealed that Down syndrome can be understood largely as a disorder of the immune system, leading to the current pursuit of immunotherapies for the condition. More details about Dr. Espinosa's research can be found at espinosalab.org

In his role as the Executive Director of the Crnic Institute, Dr. Espinosa oversees a research portfolio involving 38 research teams and >140 scientists who investigate multiple aspects of Down syndrome. This multidisciplinary group of scientists, all of them associated with the University of Colorado through 14 academic departments, is the largest geographical cluster of Down syndrome researchers in the world. Dr. Espinosa also coordinates research activities with the Sie Center for Down Syndrome at Children's Hospital Colorado, one of the largest Down syndrome clinics in the country. Finally, Dr. Espinosa directs the Crnic Institute's Human Trisome Project, an ambitious cohort study of the population with Down syndrome (www.trisome.org).