

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES
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**“NOVEL CELL LINE FOR STUDIES OF ALLERGIC AND INFLAMMATORY
DISEASES”**

Allergic diseases, which include asthma, are a significant health problem in the United States, with 15-25% of the population suffering from some form of allergy. The mast cell is the major effector cell of allergic inflammation and has also been shown to be involved in delayed hypersensitivity reactions, fibrosis, autoimmune disorders, neoplasia, and immunity against parasitic infections. Most mast cell studies are currently performed using primary cultures of mast cells, which is time consuming, costly, and produces a poor yield of cells.

Dr. Kirshenbaum and co-investigators derived the LAD2 cell line from a patient with mast cell sarcoma/leukemia. This work has had a substantial impact on research and development for allergy and inflammation, and the cell line has become the gold standard for allergy and inflammation studies because they are superior to similar cell lines and are easier to handle than primary mast cells while retaining many of the key characteristics of primary mast cells.

This technology has been transferred to many non-profit and academic institutions via Material Transfer Agreements, resulting in many peer-reviewed publications from laboratories around the world, including the United States, Canada, Israel, Chile, the United Kingdom, the Netherlands, Japan, Poland, France, Germany, and Denmark.

This technology has also been a licensing success with broad international interest from biotechnology and pharmaceutical companies; thirty biological materials licenses have been executed since the cell line was made available in 2001.

Much of the credit for the success of this technology should be attributed to the investigators. Not only have they carefully characterized this cell line, but they have also raised awareness about the technology at national meetings and other venues, through scientific presentations and discussions. The investigators are also very generous about providing this cell line (which requires a substantial amount of effort to prepare) to interested parties and are always willing to provide insight and information regarding its use.