Budget Justification

Funding is requested for a Ph.D. student who will carry out the RNA sequencing, the analytical analyses, and human cellular mechanisms and signaling pathway targets. In addition, a technician (50% In-kind) will maintain the cell culture and carry out the preclinical experiment and will be in charge of communicating and sharing data with collaborators.

Subcontracting: RNA libraries and sequencing will be performed at the MIGAL Genomic Center, Israel: 20000ILS; LCMS usage for the metabolomics analyses: 20000ILS. Animal model studies include purchasing animals, housing, feeding, and handling at the Western Galilee Medical Center facilities, Naharia Israel: 25000ILS.

Consumables: Requested for cell culture supplies to be used under the various conditions of culture and treatments. Human pulmonary artery endothelial cells and the media (cost 9000ILS for one ampule and media). For cell maintenance, we will need fetal calf serum, antibiotics, freezing media, PBS, and sterile plastic consumables. For the experiment, we will need fluorescence dyes for the ion flux measurements and membrane-potential assays, agonists, and antagonists, Click-iT EdU Kit for proliferation, PPARγ Transcription Factor Assay Kit (Cayman Chemicals, 3000ILS), GPR40 Reporter Assay Kit (Cayman Chemicals, 2700ILS), Proteome Profiler Human Phospho-Kinase Array Kit (Biotest, 5800ILS), and molecular ligands for investigating the PUFA-L intracellular signaling pathways. Funding is also requested for histology (6000ILS) and immunohistochemistry (Antibodies cost 8000ILS), including disposables, solvents, and staining dye kits.

Travel expenses to participate in a scientific conference and collaborator’s meetings are requested each year (6000ILS for each travel).

Software-PRISM 5 Annual subscription for figures and statistical analyses is 2000ILS annually.

Publication charges in open-access scientific journals are estimated at 3500$.

Annual memberships in scientific associations (like the sFRBM) are estimated at 480€.

Overhead: 44445€, which is 17% of the requested funding, according to the instructions of the ISF, Israel.