Yury Popov, MD, PhD
Associate Professor of Medicine
Beth Israel Deaconess Medical Center - Harvard

Recipient of PSC Partners Canada's Standard Seed Grant in 2017

In 2017, Dr. Yury V. Popov received a seed grant from PSC Partners Canada to investigate cholangiocarcinoma (CCA), a deadly liver and bile duct cancer linked to PSC. With limited effective therapies and high mortality rates in PSC-associated CCA patients, his study, *"Integrin αvβ6 as a Therapeutic Target for Primary Sclerosing Cholangitis-Associated Cholangiocarcinoma*" aimed to address the absence of reliable animal models and potential therapeutic approaches for this challenging condition.

Key Achievements and Impact:

- **Development of a Novel Animal Model:** Dr. Popov's team developed the SB CCA.Mdr2-/- mouse model, the first robust tool to replicate PSC-like susceptibility to CCA.
- **Identification of Key Drivers:** The study identified TGFβ signaling and immune dysregulation as crucial drivers of PSC-CCA. It also introduced integrin αvβ6 as a potential therapeutic target.
- **AI-Powered Tumor Analysis:** The team used automated AI tools to conduct precise tumor burden and desmoplastic feature analysis.
- **Leveraging Additional Funding:** The success of this seed-funded study helped Dr. Popov secure additional NIH NIDDK funding (R01DK139288).
- **Prestigious Publication:** The study titled, "Transposon-based Oncogene Integration in Abcb4(Mdr2)-/- Mice Recapitulates High Susceptibility to Cholangiocarcinoma in Primary Sclerosing Cholangitis" (Huang et al., 2024), was published in the esteemed *Journal of Hepatology*. Link to full article

"This work would not be possible without recognition of importance of this work and two-year pilot grant from PSC Partners Seeking a Cure Canada."

Dr. Popov