

Tech Transfer

In September this year, we licenced GraCS, our in-house grant management portal, to the Agriculture and Forestry University (AFU) in Nepal through the LVPEI Technology Transfer Office (TTO). GraCS was developed by Dr. Ponnari Gottipati, Associate Director – Research and Ranganath Vadapalli, our software engineer, supported by a grant from the DBT/Wellcome Trust India Alliance. This tool integrates seamlessly with institutional finance management systems, enabling researchers to track expenditures in real time, receive compliance alerts, monitor fund flows, and generate reports automatically. Dashboards provide detailed and strategic views of various applications, grants as well as performance indicators providing key information on the research portfolio of the institution.

AFU procured GraCS with support from the USAID Nepal Higher Education Project. This is an exciting development. This licencing agreement is the first breakthrough for our TTO and is thus an important milestone in our journey to take our in-house innovations to the market. L V Prasad Eye Institute's TTO is managed by Sathguru Management Consultants and was inaugurated in the first quarter of 2023. Congratulations to Ponnari, Ranga, and the TTO team on this milestone.

Expanding the reach of technologies

About a year ago, I wrote to you about another innovation, the Baby vision screener (BaVis) device, used to assess vision and the field of vision in newborn and very young, preliterate infants. BaVis allows a clinician to monitor the eye in real time. and its software assesses how these infants “look” at light stimuli and infer quantitatively the health of their vision. Close to 80% of a human infant's developmental milestones are linked to vision. So, in essence, BaVis can now assess both the field of vision in babies and their developing brain. The project is led by Dr PremNandhini Satgunam, an optometrist and researcher, in collaboration with engineers and designers from the Centre for Technology Innovation (CFTI) at LVPEI, and practicing clinicians. She had started work on the device nearly 10 years ago, during a CFTI hackathon, when vision screening in infants was identified as an unmet need. The efforts of the team led to advancements in that device and BaVis was awarded a patent both in India and USA. We are in the process of commercializing it so that it is available to all those in need. In the past year, the team has built a partnership with Forus Health Pvt Ltd., who develop and manufacture advanced medical devices, designed for the effective management of visual health. Crucially for LVPEI, Forus Health claim to focus on technology solutions that are affordable and accessible to both urban and rural patients.

At LVPEI, we believe in the power of collaboration. Our unique ecosystem enables clinicians, researchers, and engineers to work together, driving the development of science-based innovations, regenerative medicine, and medical technology solutions. Our diverse portfolio reflects this commitment, showcasing groundbreaking projects and pharmaceutical innovations such as cell composition and production method for treating corneal diseases by Dr. Sayan Basu and Dr. Vivek Singh; a method to detect biomarkers for diagnosing glaucoma in tear samples Dr. Aparna Rao; and a novel formulation technology for enhancing the administration and efficacy of fluoroquinolone antibiotics developed by a team of researchers at Birla Institute of Technology, Hyderabad and me. Other medtech innovations from our Centre for Technology Innovation (CFTI) include a hand-held modular

ophthalmic device, a peripheral refraction testing device (PARC), a One-Slit Lamp and a method for detecting corneal shape abnormalities developed by Dr. Shrikant Bharadwaj. LVPEI has worked in collaboration with esteemed international and national organizations such as the Bradford University, the University of Sheffield, IIIT-Hyderabad, BITS-Hyderabad among others. Through these innovations and strategic collaborations, LVPEI remains at the forefront of eyecare innovation, shaping the future of eyecare.

What matters is quality

Here I would like to reiterate that the basic principle behind these innovations and technologies is to improve the quality of eye care. This we achieve by addressing accessibility, affordability, and availability, with a focus on challenges to eye care service delivery in low and mid income nations.

In a very short time, with new focus on not only research and innovation but also on technology transfer to facilitate translation, our group has secured 9 patents and 6 more are in the pipeline. I am confident that many more will be added in the years to come. I would like to thank Sayan Basu, our Director of Research, and the team at Sathguru Management Consultants, for making this journey possible and improving awareness in our group.

The TTO team will play a crucial role in taking our product ideas and technologies, and our expanding high-quality IP portfolio in India and other territories. We look forward to engaging with companies and collaborators with interest in taking these technologies to enhance patient impact by commercializing them.

Innovation in the life sciences has a rather long commercialization journey, so, partnerships are invaluable. If you are interested in our internally developed or co-developed technologies, please visit [LVPEI Tech Briefs](#) to read about them. For more information, you may reach out to the TTO team at lvpei-ttgroup@lvpei.org.

-Prashant Garg