Resolution V: Research and Innovation Within USP

USP will cultivate a collaborative, robust research, and innovation culture that will allow us to continuously assess new technologies and capabilities relevant to our standards-setting activities. We will also identify, prioritize, evaluate, and develop new opportunities that further USP’s mission and respond to the needs of our stakeholders.

In FY 2019, USP’s Research and Innovation (R&I) team formalized our governance and processes, advanced new and current projects, established the continuous manufacturing function and broadened the adoption of the Innovation Infrastructure.

As part of our operating model, USP formalized the project life cycle and supporting organizational structure and ensured that the process aligns with USP’s broader science strategy and organizational mission.

The Pharmaceutical Continuous Manufacturing (PCM) initiative was established with dedicated staff to identify opportunities and partnerships to advance the quality of medicines manufactured in this manner. We developed a USP Education curriculum in partnership with a leading academic institution to begin offering class- and lab-based trainings in FY 2020.

In addition to the incubated projects launched in 2018, USP is incubating two additional projects: one focused on integrating valuable USP data sets based on the Global Substance Registration System for drug substances, and the other on the use of artificial intelligence to leverage USP’s vast amounts of data. These forward-looking projects represent potential new ways to modernize our products and processes and could contribute to USP’s standards-setting vision and public health impact. As part of our expansion, we also have established an informatics function to explore relevant projects that support the digital strategy within USP.

We are exploring several proof-of-concept topics, including the industrial internet of things, drug delivery technologies and food screening technologies. With input from stakeholders, some of these projects may transition into the incubation phase and eventually become candidates for entry into the compendial standards development process.

As a way to spur innovation, we launched the Ideas in Motion microgrant program, which enables internal staff to apply for seed funding to help demonstrate innovative ideas.

Finally, USP broadened its Innovation Infrastructure reach throughout the organization globally, expanding the utilization of Ignite, Idea System and KaiNexus.

Key Accomplishments

- Formalized R&I project life cycle and supporting organizational structure to align with science strategy and USP mission
- Scaled PCM organizational activities with dedicated staff and development of partnerships such as the USP PCM Education curriculum
- Bolstered the number of incubated projects and early phase projects through input from stakeholders, including the expansion into informatics-related topics
- Broadened the availability and utility of innovation tools and resources to global sites and high-impact organizational initiatives