INTERAX BIOTECH – EFFICIENT GPCR LEAD DISCOVERY BY COMBINING NOVEL BIOSENSORS WITH COMPUTATIONAL BIOLOGY

Problem – Challenge
Drugs targeting G protein-coupled receptors (GPCRs) represent nearly half of all prescribed medicines across all therapeutic areas. However, due to the complex nature and pharmacology of these receptors, medications exist only for a small fraction of these receptors. The pharmaceutical industry is investing billions on such programs, but is so far failing at clinical stage due to unpredicted adverse effects. The currently available drug discovery technologies are limited in their scope and predictive capability preventing therefore the development of new and better drugs.

Solution
InterAx has built a universal, scalable and lean drug discovery platform. It has high predictive capability for recognition of adverse effects already before costly clinical trials. Thus we are able to deliver superior drug candidates with better safety profile.

Our solution enables the dissection of human receptor signaling in high-throughput drug screening for better prediction of clinical ‘drug-like’ properties such as quality, safety, and effectiveness of drug candidates. The drug screening process will be significantly improved by utilizing our proprietary protein-based biosensors, mathematical models of drug-induced signaling pathways with strong predictive capability. These technologies together allow to determine cellular signaling responses leading to beneficial or adverse effects or mixtures thereof for patients: enhancing therefore quality of drug candidates. We are building a technology platform for addressing pharmacological relevant indications such as metabolic disorders, CNS, and others. We will dramatically reduce costs for the development of novel GPCR drugs with reduced side effects, thereby benefiting patients with unmet medical needs.

AERIAL DATA FOR PROFESSIONAL MAPPING AND SURVEYING

Problem – Challenge
Recent progress in sensor, battery and motor technology makes a new class of small and affordable aerial robots possible. However, current platforms are limited in a way that they either provide maneuverability (rotorcrafts) or range (fixed wing airplanes), and typically must be operated by humans.

Solution
Thanks to its unique design, the WingtraOne is as easy to use as an agile multicopter with the long range and speed of a high endurance fixed-wing airplane. Its smart navigation software, WingtraPilot, allows to intuitively plan survey flights. It can be customized with various high-end cameras to capture high-resolution aerial images to generate accurate orthomosaics and 3D models. The WingtraOne is equipped with the best components, giving the user a professional drone that is particularly robust and efficient. The Wingtra principle consists of three steps:
1. Intuitive and easy mission planning with the WingtraPilot (PLAN),
2. Fully autonomous flights: No piloting skills needed / Take off and land vertically everywhere (FLY),
3. High-quality geotagged images right after the flight / Images compatible with any aerial data analysis software (ANALYSE).