3Z and Prestwick Chemical SAS initiate research collaboration

3Z and Prestwick Chemical SAS today announce formal research collaboration. The focus of the collaboration is to validate the ultra-high throughput, fully automated behavioral screening paradigm for zebrafish, developed by 3Z. A subset of chemicals particularly suitable for screening in zebrafish will be selected and we furthermore aim to identify novel compounds that modulate sleep-wakefulness and will subsequently be developed further. Initial screens will be run on the 1200 drugs comprised in the Prestwick Chemical Library®.

At any one timepoint over 40 million people are affected by long-term sleep issues and 20 million have short-term sleep problems. A random selection of participants shows that 95% have suffered from insomnia at some point. Insomnia is correlated with significantly decreased general well-being, comorbidity with multiple serious psychiatric disorders, and increased mortality. Pharmaceutical treatment, however, is impaired by negative side effects and the search for new and better sleep aids is slow. Over the last 15 years the Food and Drug Administration (FDA) has seen a 50% drop in the registration of new CNS active pharmaceutical and the number is even higher when turned to sleep aids. The demand for novel therapies and drugs, however, continues to increase with aging populations.

“We are extremely pleased about the collaboration with Prestwick and we are confident that our joint efforts will be instrumental in revealing much-needed novel sleep aids” 3Z CEO Karl Karlsson said. “Moreover, the 3Z strategy is an ideal solution for drug discovery in the current climate of intense demands for cost-effectiveness and timeframes”.

“Prestwick is delighted to collaborate with 3Z scientists to identify new sleep aids. The use of the Prestwick Chemical Library® in the innovative zebrafish models from 3Z further validates Prestwick’s approach to drug discovery from hit finding to drug candidate” added Prestwick’s CEO Prof. Thierry Langer.