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Headline: All together now …

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Early October saw the launch on the third challenge of the sbv IMPROVER (Systems Biology Verification—Industrial Methodology for Process Verification in Research) effort spearheaded by IBM and Philip Morris International (PMI), which combines elements of competition and crowdsourcing within the research community with the goal to create an industry standard for making systems biology-related work more efficient and useful, using lung disease as the focus.

This latest phase of sbv IMPROVER, the Network Verification Challenge, seeks to provide the global scientific community with a new methodology to define and verify models of complex biological networks, and participants will be provided with a set of network models and asked to verify and enhance them using a high-performance online platform.

According to sbv IMPROVER, this challenge has a number of important implications, including the potential to provide better maps of disease, an accelerated mechanism for the dissemination and validation of scientific knowledge and "big data" and improvements to therapeutic discovery and development across the scientific industry, including healthcare.

"This challenge is even more community-based than previous challenges," says Dr. Manuel C. Peitsch, vice president of biological systems research at PMI, noting that sbv IMPROVER has put increased effort into recruitment for participation and calls to register compared to the first two challenges: the Diagnostic Signature Challenge and the Species Translation Challenge—both of which are now closed and the second of which saw results presented at the sbv IMPROVER Symposium in Athens, Greece, at the end of October.

"The more, the merrier is what we want to see," echoes Dr. Pablo Meyer-Rojas, a researcher at IBM's Thomas J. Watson Research Center. "This is even a more democratic process than the other challenges. A diversity of interested people with different specialties and knowledge of biology and networks is what we need to put all the essential pieces together."

"If you think about global long-term and need for increasing science-based decision making both in research and medicine, the science in not just the academic environment but also the industrial environment needs to become increasingly credible, through independent verification and agreed-upon standards," Peitsch adds.

However, sbv IMPROVER isn't the only high-profile group effort that's been on DDNews' radar in the past year or so. Another player with big names and long reach is TransCelerate BioPharma Inc., a nonprofit consortium that in September 2012 brought together 10 top pharmaceutical companies from around the world to join forces on accelerating the development of new medicines.

TransCelerate's participants came up with a list of 30 potential problems to tackle and then narrowed that list down to an initial set of five tasks to fund and tackle: development of a shared user interface for investigator site portals; mutual recognition of study site qualification and training; development of risk-based site monitoring approach and standards; development of clinical data standards; and establishment of a comparator drug supply model.

So far in 2013, the consortium has announced that six new pharmaceutical companies joined as members, it released a position paper outlining a methodology for risk-based site monitoring that could significantly modernize and streamline the way studies are conducted and monitored and it announced that it has reached several important milestones in its initiative to realize efficiencies across clinical trial investigator and site qualification and training efforts.

"Biopharmaceutical companies often spend an extraordinary amount of effort monitoring clinical trials—data from each patient, for every study, at every global site, is reviewed—yet, there isn't much evidence to indicate that this level of review is effective at identifying systemic errors or substantially improving the quality of data gathered," according to Dr. Dalvir Gill, CEO of TransCelerate, speaking about the position paper. "Despite this, monitoring approaches have remained unchanged … we have outlined a methodology—procedures, algorithms, a toolkit—for risk-based monitoring that we believe will be effective and efficient for our member companies and others."

In spring of this year, DDNews also reported on the National Brain Tumor Society's formation of the Defeat GBM Research Collaborative, a strategic research initiative with a goal to double the five-year survival rate of patients with glioblastoma multiforme (GBM)—the most common and deadliest form of brain cancer—in just five years.

Noting on its website that the collaborative launched "to great enthusiasm from both the patient and scientific communities," the National Brain Tumor Society has so far reported that in late August, the society and its strategic advisors—Drs. Anna Barker, Webster Cavenee and W.K. Alfred Yung—hosted the rest of Defeat GBM's research team, partners and other potential collaborators from leading research institutions across the globe in a scientific meeting "that solidified the timelines, goals, designs, aims and integration of the four individual projects that exist within the overall effort."

February 2013 saw us cover news of 30 industry and academic partners joining together to create the European Lead Factory, a novel platform for a new approach to drug discovery and an initiative that is supported by the Innovative Medicines Initiative (IMI). The idea is to revitalize drug discovery by providing an "industry-like" discovery platform for public partners, which would aid in taking novel academic research forward into promising lead molecules more rapidly than current approaches allow.

Since the, the IMI has released its "Bibliometric analysis of ongoing projects:

Innovative Medicines Initiative Joint Undertaking" report in October—its third such report—which finds, among other things, that researchers and projects funded by IMI are highly collaborative, with about two-fifths of all publications by IMI researchers being cross-sector efforts (such as between academia and corporations) and more than half of all papers from IMI projects being cross-sector.

Also, in July, the European Commission released its proposal for the IMI 2, which will have the goal of developing next-generation vaccines, medicines and treatments, such as new antibiotics. IMI 2 is expected to start in 2014 and run for 10 years.

In June, DDNews reported on a new Agency for Science, Technology and Research (A*STAR) R&D Consortium Program designed to provide a platform for pharmaceutical and specialty chemicals industry members to confront challenges such as costs, regulatory compliance and production as they seek to move drugs from trials to markets. Since that time, no significant new developments have been reported from the consortium, nor by major media outlets—though given the newness of this consortium, that isn't entirely unexpected.

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