Bio·IT World's

SPECIAL REPORT:

2011 BEST PRACTICES Awards

The Select Six Best Practices

As always, we are dedicating our summer issue to a showcase of the winners of our annual Best Practices Awards competition. The six winning entries—from CliniWorks, Collaborative Drug Discovery, GlaxoSmithKline, Merck, Novartis, and Oxford Nanopore Technologies—were introduced at the Bio-IT World Expo in April. Their stories are presented in the following pages.

This year's competition attracted 34 entries and prompted much frank deliberation among our judging panel, as they sought to identify the most important, novel, and potentially impactful collaborations and ideas from basic research and IT infrastructure to translational medicine. We believe that the winners of the 2011 Best Practices Awards offer some exciting stories that highlight the value of ingenuity and collaboration, impacting areas including drug discovery, diagnostics, and clinical research. We hope that some of these advances will have resonance across portions of the industry.

As always, thanks to our panel of 13 guest judges for volunteering their time and insights. We congratulate not only our winners (and their nominating organizations) but everyone else who took time to enter this year's competition.

We will have news about the make-up and timing of the 2012 awards in our next issue.

— The Editors

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Providing Patients as a Service

BY ALLISON PROFFITT

Cambridge, Mass.-based CliniWorks' new software-as-a-service platform, AccelFind, allows real time clinical data mining and patient screening from medical records to streamline planning and recruitment of clinical trials. It is fully HIPAA compliant, protects patient privacy, and is capable of incorporating data of any source, format, structure and content. The platform's promise caught the judges' attention and earned it the 2011 *Bio•IT World* Best Practices Judges' Prize.

Judges' Prize

Winner: CliniWorks
Project: AccelFind

AccelFind is a specialized natural-language processing platform with a vast conceptual terminology database, as well as syntax and context analytics. "Our search engine could be compared to Google, but Google is looking for keywords... while in our case, what we're looking for is relationship between words," explains Nitzan Sneh, CEO.

Sponsors access the system to plan a recruiting strategy for a clinical trial. The platform converts existing medical records from any number of institutions (from databases, transcriptions, or scanned copies) and other notations (from doctors' notes, nurses' notes, or lab reports) into a unified and universally usable form using language rather than the structure of databases to decipher the meaning of medical data and place it accordingly. AccelFind then searches and analyzes the unified data against any set of inclusion/exclusion criteria, intelligently sifting through free text entries and accounting for context.

The system is "very sensitive to the meaning of vocabulary," says Sneh. For example, AccelFind can distinguish effectively between the statements "patient has heart disease", "patient expressed concern about heart disease", or "patient has family history of heart disease". Researchers can screen millions of patients against a complex set of inclusion and exclusion criteria with instantaneous feedback.

For example, Sneh says, "the system can screen the medical records of the entire population looking for a hemoglobin level between 7 and 9. Only 30% of the time is the result found in the lab results section, the rest of the time it's everywhere—comments made by the physician, lab summaries, etc."

AccelFind has put great emphasis on patient privacy, removing all data from HIPAA identification fields, not just patient name, date of birth and address from the structured fields of a medical record but also from any mention or reference that might be buried in any other part of a document. A site or sponsor can used AccelFind to scan the patient population before getting IRB approval, Sneh says, because the data is completely anonymous. "Users can freely search for anything they need because they won't be exposed to any patient identifiers, so they can go and search before they go to the IRB. They only need IRB approval for those 30 [or so appropriate patients] that the system identified."

MARK GABRENYA

Nitzan Sneh, founder and CEO and Udi Meirav, executive chairman and co-founder, CliniWorks

Faster Feasibility Studies

This saves time and money, Sneh says. High quality, iterative feasibility studies can be done in a few days or even a few hours, rather than weeks or months. Recruiting can be compressed by 3-6 months, not only by shortening the front-end exploratory part but also by being able to target only the most promising sites with known and quantified availability of suitable candidates. The acceleration at each phase can accrue to a significant reduction in time to market, or faster decision to eliminate a drug candidate from the pipeline, leading to reduced clinical development costs (approximately $50,000 per day). For successful drug candidates the ROI is even higher: earlier revenue and longer patent protection (value can be in the vicinity of $1,000,000 per day).

The last year has been marked by rapid growth for CliniWorks. In December 2010, AccelFind successfully concluded a 140-study pilot of sponsored phase II or phase III studies. Sneh lists current customers including pharma companies like Novartis (in rare diseases), Merck (in oncology), CROs like Parexel, and hospitals including a health information exchange of 11 hospitals in Texas using the program for internal quality and safety studies.

With 10 employees in Cambridge and eight at a wholly-owned subsidiary in Tel Aviv, Israel, CliniWorks is small, but Sneh expects to hire five to six new staff by year end. He says that winning the Best Practices award was a very personal triumph for the team. "Many [employees] consider this prize as recognition for their own contribution. They are very proud." •