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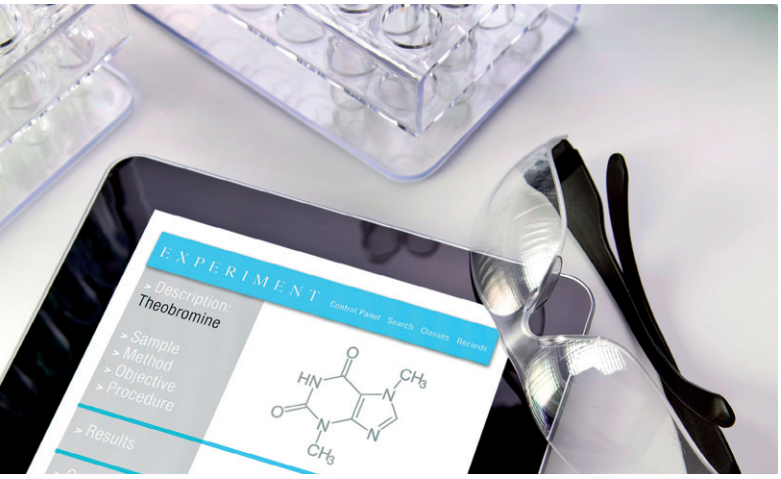
PEPPERMINT
VENTURE PARTNERS

UPDATE °3

EDITORIAL

THE FUTURE OF SMART LABS



Although the digitization transformed most of our habits and the way we work, shop, travel and communicate, astonishingly the realm of basic science and research has to date not been affected as strongly as one would be inclined to believe.

Going digital in the laboratory has been fairly slow to date as the majority of scientists in academia and small companies still use paper based lab notebooks. Due to the rising demands in quality management of scientific data and the ability of ELN's to capture and manage knowledge, streamline data management, protect intellectual property and foster collaboration analysts expect that electronic lab notebooks (ELN's) will be the norm in the next 10 years. With the addition of our new portfolio company labfolder GmbH we are aiming to participate in this growth opportunity as the market potential for ELN's is estimated to grow up to over $2 billion*.

However the transformation of the laboratory will not stop by becoming "paperless" as ELNs are but one component of a lab's information infrastructure. In the future all aspects of the work flow in the lab from managing inventories to running experiments and obtaining data will become smart and can be run by a lab operating system.

Therefore we decided to make the smartLab the focus of this Update. We are pleased to share with you the views of actors in this field on what trends we can expect. Our portfolio company labfolder is an innovative player in this field and was also a partner in a special show called "Smartlab" that took place from October 6 – 8, 2015 as part of the trade fair Labvolution in Hannover. The Charité is one of the first world leading university hospitals to embark on the path to lab digitization and Prof. Dr. Ulrich Dirnagl will share his view on why this is important for his research. In addition Tim Hiddemann CEO of the leading online platform for antibodies will share his view on the amazonization of the laboratory market in the future.
We hope you enjoy reading our UPDATE 3.

The Peppermint VenturePartners-Team

Atrium Research (Electronic Laboratory Notebooks: A Foundation for Scientific Knowledge Management Edition V).

IN THIS ISSUE

IN FOCUS

THE LABORATORY OF THE FUTURE IS DIGITAL

All the developments in modern research are leading to ever-increasing volumes of data in research laboratories of medical technology and life sciences companies and research groups.

Managing these volumes of data represents not only a challenge but also offers unique opportunities: ‚Big Data' is the catch-all slogan encapsulating all the hopes that medical and life scientists are placing in the new generations of analytical and assessment methods.

Accompanying Big Data is a trend that makes the production and useful linkage of large volumes of data possible in the first place: digitization. Where as in all other walks of life, such as in the workplace, the home and the realm of sports, the complete networking of all persons and information devices has become standard practically everywhere, laboratories have only recently been discovering the opportunities available to them: With tablets and smart pads, data can be digitally recorded anywhere, central data servers enable straightforward knowledge management, and secure platforms for the exchange of data are making research cooperation increasingly easier.

The next step is obvious: Comparable to the ‚smart home', the digital future of the laboratory lies in the ‚Smart Lab'. An intelligent networking of data, materials, machinery and people, already makes things possible today that would have been considered science fiction in the recent past: Reagents that know how they are being used in the lab, analytical devices that enter measurement data directly into the lab manual, and smart processes that not only calculate how fast they are being performed and at what level of material consumption, but which also issue detailed instructions to lab technicians – modularization and virtualization make it all possible.

The ways in which this future has already become a reality today is manifest in the cooperation of partners such as labfolder, Sartorius, Eppendorf, Fraunhofer and others: within the scope of SmartLAB, a special exhibition during the Biotechnica Trade Fair 2015 from October 6–8.

AUTHOR

Florian Hauer, Dr. rer. nat.
COO, labfolder GmbH

IN FOCUS

THE VISION OF THE DIGITAL LABORATORY BECOMES A REALITY

While digitization has advanced into all areas of life, most laboratories still handle data processing using a pen and paper: Experiments and studies are planned, and measurement data, along with findings and results, are recorded in traditional laboratory folders. The disadvantage of paper-based documentation systems is obvious: Valuable data remain untapped, media gaps occur and work steps must often be repeated several times.

Two molecular biology PhD's, Simon Bungers and Florian Hauer, working in collaboration with pharma expert Joris van Winsen, wanted to do something to correct this drawback: They developed the digital laboratory folder (www.labfolder.com). Their vision: A completely digitized laboratory that relieves scientists of having to manage and collate the continually growing mountains of data, so they can concentrate on their essential task – gaining new insights and developing new applications and compounds.

"While up to recently, many scientists were not even aware that the use of digital systems is not only allowed but is even preferred from a regulatory standpoint, digital lab manuals such as labfolder have been on the rise in the meantime", according to Simon Bungers, CEO of labfolder. "The prerequisite for compliance with ISO standards or quality guidelines such as GLP, GAMP and others, is that the software – unlike standard office software – includes features such as a full audit trail, dual signatures and flexible rights management. These and many other lab-specific features make labfolder an indispensable aid in the lab, helping to save time and resources for nearly 10,000 scientists worldwide", explains Bungers.

In this, labfolder's range of functions goes above and beyond that of a purely digital laboratory manual: As a central platform for data processing in the lab, labfolder links data, devices, materials and people. Thus, entire teams can exchange data, knowledge and documents in a secure network to facilitate cooperation. For collaboration with external partners, for example, easy guest accounts can be created with precisely defined access rights. Analytical devices can also be connected to labfolder, in order to document measurement data directly and without transmission errors.

As a partner of SmartLAB at the Biotechnica 2015 trade fair, labfolder presented how already today, digitization can help laboratories save time and resources. Those who didn't have the opportunity to visit the SmartLAB can test labfolder at any time at labfolder.com.

Joris van Winsen, CFO, Florian Hauer, COO, Simon Bungers, CEO

AUTHOR

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IN FOCUS

REVOLUTION AT LABVOLUTION

The first Labvolution 2015 was a kick-off exhibition which – as a trade fair dedicated to laboratory equipment – dovetailed perfectly with the traditional Biotechnica.

The smartLAB is an initiative of 12 partner companies and institutions that seeks to demonstrate how today's laboratory infrastructure could be further developed. This was implemented using a showroom put together within one year and showcased to the general public for the first time at Labvolution 2015. The showroom combines widely diverse innovative concepts and technologies. In the smartLAB, there is a focus on the three major trends of „flexibility and modular design, integration and functionalisation, along with digitisation and automation". The ballroom concept from manufacturing served as a model, enabling a flexible laboratory configuration.

The individual modules were designed in a honeycomb structure, and basic laboratory devices such as stirrers, scales and sensors were integrated into this structure, enabling a laboratory structure with many free workspaces. What makes this so special is that one of the biggest problems of today's laboratories is a lack of laboratory space due to too many technical devices. It was also possible to integrate robotic assistance to support laboratory work in repetitive tasks. The centrepiece of the smartLAB was the digital networking of the entire setup. This allowed the top-level laboratory information system (LIMS) to communicate bidirectionally with all the devices in the laboratory.

The participating partner institutions and companies have made contributions to the smartLAB at their own expense and own risk. For the implementation of the overall concept, funding was made available by the Lower Saxony Ministry of Science to the Institute for Technical Chemistry at the Leibniz University of Hannover (TCI). The contributions of the partners were very diverse, ranging from basic provision of laboratory equipment, right down to sophisticated software programming. The company labfolder agreed to further develop its digital laboratory journal within the short time frame of one year provided for implementation of the project, so that a complete LIMS was available for the applications. The implementation of programming for the first time enabled laboratory routines to be carried out in a totally integrated, networked laboratory environment, thus providing a hands-on showcase for the advantage of an intelligent laboratory as a vision of the future. For this purpose, the implementation of the LIMS was developed in close dialogue between labfolder and the TCI with the help of regular meetings, teleconferences and Netviewer sessions.

AUTHOR

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smartLAB-Initiative

IN FOCUS

THE MODEL LABORATORY OF THE FUTURE

From the perspective of Deutsche Messe AG, the smartLAB was the highlight of BIOTECHNICA/LABVOLUTION 2015 – for a variety of reasons: First of all, the modern laboratory was an eye catcher.

With its white and green colours, the new laboratory technology exhibition LABVOLUTION dominated the scene. The hexagon shape also proved to be a good choice.

The trade visitors felt welcome and had absolutely no inhibitions about closely scrutinising the future laboratory set up in the centre of the special exhibition. What's more, there was consistent interest in the laboratory of the future. The rows of chairs were continuously filled during the lectures and live demonstrations of use cases.

Queues of enthusiasts formed to visit the partner companies showcasing on the outsides of the hexagon at terminal-style stands. Among the total of approx. 10,000 trade visitors to this dual exhibition, 54 percent indicated on the second day in visitor surveys that they had already had a look at the smartLAB or were still planning to pay a visit. Within the ranks of the trade press, as well as in the assessments of exhibitors and visitors, there were great accolades for the smartLAB initiative. The company labfolder – one of the partner companies in the smartLAB – benefited from the great notoriety. The Berliners made some 800 contacts within the scope of the special exhibition. Not least, a prize drawing generated traffic in the labfolder corner of smartLAB. Numerous guests tried their luck at guessing how many pipette tips were in a glass cylinder.

The companies and research institutions participating in smartLAB demonstrated with the smartLAB the impacts that megatrends such as digitisation and automation are expected to have on laboratories, not only in research but also in industry. They presented a fully-networked, intelligent model laboratory of the future – up to now, a one-of-a-kind innovation in this form.

Labvolution-Video by Blitzfang Medien
Link: *www.youtube.com/labfolder*

AUTHOR

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Deutsche Messe AG

IN FOCUS

ELECTRONIC LABORATORY NOTEBOOKS IN THE ACADEMIC LIFE SCIENCES

How biomedical scientists take notes and document their work has not changed much over the last 200 years: They write with a pen in a bound, paginated laboratory notebook (LN).

Every professional doing active research in the life sciences is required to keep such an LN, they are the core element of record keeping, data management, and initial analysis and interpretation of results in research. Today, however, data is almost exclusively digital, and digital technology provides a plethora of tools for recording, annotating, sharing, processing, and storing all the information that cumulatively drives progress in the life sciences. Scientists use computers for everything and everywhere, privately and professionally, except for documenting their research, experiments, and laboratory procedures. Pharmaceutical industry, with its superior resources and regulatory pressures has already moved to electronic LNs (eLNs).

Currently, many researchers and institutions in academia realize that the implementation of eLNs is overdue. The advantages of an eLN are as obvious as the disadvantages of the conventional LN. Most of the original data obtained in laboratories worldwide is already digital and can easily be integrated or linked to the eLN. eLNs foster collaboration, as protocols, data, concepts can be shared within or between groups. Entries can be time stamped, changes are recorded, versions controlled. Protocols used frequently can simply be integrated as templates. Project progress and eLN use can be easily monitored by group or project leaders. eLNs are searchable, archiving is simple, and copies are easily made for the institution and the individual researcher, many of whom will leave the institution at some point.

Several reasons may account for the astounding survival of the paper LN in academia. It is a robust and easy to handle 'technology', which has been handed down over generations of scientists. At the same time, the emerging eLN market has been dominated by expensive solutions for R&D in industry. Standards for data annotation, exchange or export between different eLN platforms are only evolving. Fortunately, over the last few years, the situation has slowly but substantially changed, and some mature and affordable eLNs are available. Scientists who overcome their reservation and exchange their LN for an eLN regularly become avid supporters after a short learning pe-

riod, praising their advanced functionalities. As part of the implementation of an ISO 9001-certified quality management system, my academic research department at the Charité has recently moved from LNs to an eLN (Labfolder). We monitored this transition by surveying the users. The majority of researchers, technicians and students were eager to start working with an eLN. Approval rates even increased after exposure to the eLN and day to day work with it. The Charité as well as the Berlin Institute of Health are currently considering to follow our example and to provide eLNs to its scientists. I have no doubt that eLNs will become standard in most academic life science laboratories in the near future.

AUTHOR

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Charité Universitätsmedizin Berlin

IN FOCUS

SCIENTIFIC REPRODUCIBILITY IN THE DIGITAL LAB

Reproducibility is at the core of scientific method: a result can only be considered significant if it can indeed be repeated under the same experimental conditions, regardless of when, where, and by whom the experiment is being performed. With regards to reproducibility, documentation of each of the components involved in obtaining this result is of utmost importance. When a scientific study is submitted for publication reviewers must be able to assess the choice of samples and controls, experimental methods and the analyses that led to the presented outcomes and the deducted hypotheses. Ultimately, anybody reading a published manuscript should be able to reproduce the original work. Since all this data is documented in the researcher's lab notebook, this piece of "hardware" takes a very special place in his scientific life and in the interest of reproducibility the research community as a whole.

Traditionally, the first day an aspiring scientist steps into a research lab is as well the day on which he is presented his first lab notebook. This notebook and its successors are bound to follow him through his entire scientific career documenting every thought, every experiment, and every result. The lab notebook is also particularly important for future experiments because it also documents how research reagents have performed in prior experiments. Every new batch of the same reagent should be validated exactly as the previously established reference. To a certain degree, this validation data can also be sourced from the respective supplier to identify suitable reagents.

A digital lab notebook is superior compared to its physical equivalent when it comes to tying in data from these different sources into one consistent format. Thus, comparing the reproducibility of validation experiments from these different sources does also become considerably easier and more reliable.

Another key variable regarding reproducibility is the quality of the research reagents, e.g. antibodies, used to conduct the experiment. antibodies-online, as the largest online distributor of antibodies, ELISA kits and related products, appreciates the value of supplier provided and supplier independent validation data of commercially available life science products. Therefore, we are constantly working to provide the best available data for our products to our customers. We also heavily invested in the independent validation of our products in collaboration with partners such as Science Exchange and the Human Protein Atlas. Furthermore, we are initiating a program offering our customers free antibodies in exchange for their validation data.

The reproducibility of scientific results has garnered a lot of interest recently, in particular in the life sciences. Improving upon the confidence in published results is therefore part of everybody's responsibility – manufacturers, distributors, scientists and publishers. And independent validation of the performance of life science reagents and digital lab notebooks contributes a great deal to increased reproducibility.

AUTHOR

Dr. Stefan Pellenz, Dr. Tim Hiddemann
Antibodies Online

PVP EXPANDS IT´S EXPERT PANEL WITH WELL KNOWN PLAYERS FROM THE DIAGNOSTIC AND REIMBURSEMENT INDUSTRY

Dr. Fred Schaebsdau

Dr. Fred Schaebsdau former Head of Global Strategy and Business Development Roche Diabetes Care will be supporting PVP in the analysis of new investment opportunities, especially in the field of diagnostics, and will also be helping existing portfolio companies with his expertise.

His career includes positions as Eli Lilly Medical Devices Division, leading consultancy firms as well as Abbott Diagnostics, where he held an executive position with increasing responsibility, both in the EMEA region and later in the global organization of Abbott Diabetes Care. From 2009 to August 2015, Schaebsdau was Head of Global Strategy and Business Development at Roche Diabetes Care.

Additional specialized knowledge from the health insurance sector will be provided by Dr. Tom Albert, the Director for Health Strategy of AXA Health Insurance AG. In this function he examines partnerships and weighs opportunities to enhance offerings for German customers.

With his experience in the area of the conception of novel care programs for chronically and seriously ill clients and his tremendous knowledge how to introduce innovations into the healthcare system he will provide invaluable insights for PVPs portfolio companies and the company's strategy. In addition he will share his views on how to facilitate collaborations between digital health companies and the health insurance system to help transform the practice of medicine.

Dr. Tom Albert

CURRENT EQUITY POSITIONS

CATERNA VISION GMBH

Caterna Vision (CV) has developed and launched the first reimbursed digital eye therapy in Germany. Caterna Vision Therapy (CVT) is the first mobile medical app in Germany that is prescribed to patients by physicians and is currently reimbursed by more than 5 health insurance companies (among them are BARMER GEK, AXA and others) for the treatment of amblyopia (also known as lazy eye). Amblyopia is a common condition which can affect up to 5% of the general population (in Germany, 150,000 people). The standard treatment is occlusion, but data show that occlusion alone may not be sufficient to manage the disease in all cases. Furthermore, occlusion impacts on quality of life and can also result in stigmatization of the child. CVT currently is used together with occlusion and has shown to double the vision acuity compared to patching alone. It also may have positive effects on occlusion therapy adherence.

In addition, in patients whose first line therapy occlusion had stalled, CVT were able to significantly improve visual acuity. More than 500 children have been treated with CVT so far. Just recently, in addition to CTV, CV has launched its occlusion app, which makes it possible to track and monitor occlusion behavior by entering data such as when and how long the occlusion is applied and connect the parents and the physician.

In addition to CTV, CV is developing new digital applications for eye diseases such as AMD (age-related macular degeneration), which are planned to be launched in the next 18 months. PVP led the A-Round in 2014 and CV is starting to raise a B-round in Q4/2015.

www.caterna.de

CEVEC PHARMACEUTICALS GMBH

Since September 2012, PVP has been an active investor in CEVEC, the global provider of an innovative human cell expression system – the CAP® Technology. With the introduction of the CAP®Go and CAP®GT expression platforms, which are based on its unique and proprietary human cell lines, the activities of CEVEC have focused in 2015 on the production of human recombinant glyco-proteins and gene therapy vectors.

The CAP®Go platform comprises a portfolio of glyco-optimized human suspension cell lines for tailor-made glycosylation of recombinant proteins. In the last 6 months CAP®Go has proven to enhance the activity, stability and serum half-life of several candidate proteins (C1 Inhibitor and placental humanalkaline phosphatase PLAP) and was endorsed by the first clinical partnership with Biotest AG for the production of candidate molecules to treat the symptoms of hemophilia patients.

The CAP®GT expression platform provides a fully scalable, regulatory endorsed production system for gene therapy vectors. CAP®GT cells grow to high cell densities show a broad viral propagation spectrum including lentivirus (LV), adenovirus (AV) and adeno-associated virus (AAV). Furthermore, CAP®GT enables easier scale-up and reduced production costs when compared to adherent cell culture systems. The first collaboration on the CAP®GT technology was announced in September with Généthon in France, which has the mission to make innovative gene therapy treatments available to patients affected with rare genetic diseases. The pipeline of Généthon includes products currently in international clinical trials and at preclinical stages, for immune deficiencies, muscular dystrophies, ocular and liver diseases.

To expand its activities and successfully commercialize its leading CAP® based technologies CEVEC raised € 4.5 million in a new financing round in July and appointed Frank Ubags as Chief Executive Officer. Frank Ubags has more than 35 years of business experience in well-known companies and possesses the necessary skills and experience to further strengthen CEVEC's position in becoming the leading independent player for human cell line based clinical materials.

www.cevec.com

CURRENT EQUITY POSITIONS CONTINUED

CRYOTHERAPEUTICS GMBH

CryoTherapeutics GmbH, the developer of a proprietary and novel cryotherapy system for use in the treatment of coronary artery disease, has been a part of PVP's Portfolio since February 2013. PVP has supported the company since its inception in 2010, first as a coach for the „High-Tech Gruenderfonds" and later as a lead-investor. In these capacities, PVP helped CryoTherapeutics to raise total funds of € 8.3 million to date.

With these funds CryoTherapeutics has been able to develop a proprietary cryosystem based on phase-change cooling consisting of a console and various balloon catheters to optimally deliver cryoenergy in a clinical setting in interventional cardiology. The Company has also developed a strong IP position for the use of cryotherapy to treat coronary artery disease as well as for the phase-change cooling technology in various other medical applications.

As of today, CryoTherapeutics has impressively demonstrated the anti-inflammatory effect of a brief cold treatment on lipid rich plaques in the gold-standard animal model and is preparing for a clinical first-in-man and CE Mark study in the first half of 2016. The aim of the study will be to demonstrate that, due to the anti-inflammatory effect of the cryogenic treatment, the lesion responsible for heart attacks can be stabilized and an optimal healing process can be promoted, with a restoration of vascular function.

www.cryotherapeutics.com

EMPERRA E-HEALTH TECHNOLOGIES

Emperra improves diabetes care through smart connected devices and software solutions. ESYSTA® developed by Emperra as a digital health solution provides self-empowerment and decision support for patients with insulin dependent Diabetes mellitus (DM) and connects them with physicians, relatives and caregivers. For the first time, diabetes data management, analytics and connected devices like the smart Emperra insulin pen and blood glucose meter have been combined to improve the management of DM. ESYSTA® is currently launched in Germany and other markets are in preparation.

PVP led the A financing round mid-2013 and has been supporting the company since then in product development partnerships and licensing as well as contacts and building relationships to corporates and health insurance companies. The proprietary smart insulin pen is able to measure the insulin dose injected and transferring the data to a web-based portal. It can be used with all major insulins through a unique and patented adapter technology. A built-in data storage and transfer module whether short-wave or Bluetooth® in the smart insulin pen and the BGM allows the automatic transfer of insulin units, carbohydrate intake and blood glucose values to Emperras' web portal.

The ESYSTA Bluetooth® Pen currently under CE certification communicates through the ESYSTA smart phone app allowing to accessing the Emperra portal and access all information 24/7. Emperra's web portal can be accessed through an own App (android, iOS) as well as through PCs by patients, caregivers and physicians. The ESYSTA® Portal is open to connect with third party hardware. All hardware BGM, smart insulin pen, disposables, transfer and software components are CE-certified acc. to DIN EN ISO 13485. Emperra® is fully CE-certified as manufacturer of the ESYSTA® system. The IT- and data security process is certified acc. to ISO/IEC 27001.

Emperra has already proven the utility of ESYSTA in 250 patients, within a study carried out together with a large public health insurance company, AOK-North East. ESYSTA is reimbursed by health insurance companies and currently launched in the German market to specialists and nursing homes. The company aims to complete its EUR 3.8 million B-round end of 2015.

www.emperra.com

CURRENT EQUITY POSITIONS CONTINUED

HUMEDICS GMBH

Humedics
redefining liver function analysis

Humedics, a spin-off of the Charité and the Free University of Berlin, has developed the new "gold standard" in functional liver diagnostics. Up until now, it was not possible to reliably determine the actual function of the liver. With the LiMAx test, which has been used in more than 5,000 patients, it is now possible to measure the precise liver function in real time.

The mobile breath test includes a device (FLIP device) a breath mask; to determine the liver function, the in vivo diagnostic drug Methacetin is used. Twelve hospitals in Europe are using the test.

The LiMAx test has proven to significantly lower mortality in liver operations as well as to improve the patient management of liver patients. In addition, data from new studies have shown the utility of the LiMAx test in the staging of chronic liver disease in patients with liver cirrhosis and fibrosis, and in patients with fatty liver disease.

Humedics is currently preparing the submission of the Methacetin dossier to the regulatory authorities. The second generation of FLIP devices are certified and the company obtained ISO 13485 certification in August 2015. PVP has been working with Humedics since 2009 and in 2011 took an equity position in the company as lead investor. At the end of 2014 Humedics attracted a syndicate of well-known international investors, including Vesalius, Seventure and BioMed Invest, to join PVP. €7 million was raised in this round. The money is to start commercialization of the LiMAx test in Europe and for further development of the company in order to prepare for geographical expansion and entry into new indications.

www.humedics.de

IMPLANDATA OPHTHALMIC PRODUCTS GMBH

IOP
Implandata Ophthalmic Products GmbH

Implandata (IOP) is the first company worldwide to have developed a wireless eye pressure sensor, EyeMate, to the clinical stage (18 patients carrying the sensor) which is capable of measuring intra-ocular eye pressure repeatedly or continuously. EyeMate transmits the intra-ocular eye pressure wirelessly to a small portable hand-held device of the patient, so that, for the first time, the recorded values can be integrated into a mobile patient management system.

The EyeMate App will link physician and patient to one another. As a result, the physician can see whether the current treatment to lower the eye-pressure is working or requires adjustment as well as the patient can monitor if his treatment is still effective. By this interaction as well as feed-back loops the patient is self-empowered which positively will influence the compliance to take medication. In addition, preliminary date in patients with EyeMate showed that often the current therapy requires an adjustment in order to bring the intra-ocular pressure into the normal range and after doing so the sensor confirmed this.

IOP is currently finalizing its CE-mark registration trial for EyeMate to be used in conjunction with cataract surgery. Other indications in secondary glaucoma situations, such as in keratoprothesis or penetrating keratoplasty patients are under development and first patients have been implanted with EyeMate. PVP invested as lead investor in the second closing of the A-round in 2012. IOP currently has launched its EUR 6.0 M B-round and new investors are invited to join in to bringing the first EyeMate product to the market end of 2016.

www.implandata.com

PVP & Friends at the PVP bike tour during JP Morgan 2015

ABOUT US

Peppermint Venture Partners (PVP) is a private venture capital investor headquartered in Berlin, investing in early-stage European healthcare companies. The main focus of our investments has always been on companies with innovative ideas in the field of medical devices, diagnostics and digital health, along with platform technologies in pharma. Target companies are those that are developing patent-protected technologies and products or innovative business models in their respective areas. The key investment criteria for us are that the companies are addressing an unmet medical need with a view to improving the diagnostics and/or treatment of diseases, while simultaneously aiming to improve quality of life and achieving cost savings. And, of course, we are looking for real healthcare entrepreuers.

PVP was established in 2008 by Ingeborg Neumann, Dr. Joachim Rautter and Dr. Klaus Stoeckemann. At the end of 2010, in cooperation with Charité Foundation, PVP launched the Peppermint Charité Biomedical Fund 1 (CBF). Thanks to its partnership with the Charité University Hospital in Berlin, PVP has a unique network through the medical expertise of one of the largest and most renowned university clinics in Europe, along with its international partners.

As an active investor, PVP guides companies through all crucial phases of development, from company start-up, all the way to the strategic exit. Since the beginning of 2011, CBF has invested in eight companies in the target segments and built up a promising portfolio. Up to three additional investments are planned by the end of 2016.

To support the venture capital industry in Germany our managing partner Dr. Klaus Stöckemann has been elected as a member of the board of the German Venture Capital Association (BVK) in June 2015.

In addition to management of the CBF, in 2011 PVP assumed responsibility for the external management of the newly-launched Helmholtz Validation Fund (HVF) on behalf of the Helmholtz Association. In the scope of this collaboration, PVP enjoys superb access to one of the largest research associations in Germany. In addition to this excellent network in the field of research institutions, PVP also benefits from its longstanding industry contacts.

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