

## Press Release

# Looking for a needle in a haystack of clinical data CBmed to Implement SAP® Connected Health to Improve Processing of Large-Scale Clinical Data Sets

*Comprehensive project integrates biomarkers with data collected in EHRs to enable more effective re-use in routine patient care, research and clinical trial recruitment.*

**Graz (Austria), July, 2017** – The [Center for Biomarker Research in Medicine GmbH](#) (CBmed) today announced that it will implement SAP® Connected Health software to support a project to enable the processing of large-scale data sets from disparate sources, with the goal of improving healthcare. CBmed is an Austrian-funded competence center that links research infrastructure, scientific expertise, medical knowledge, and national and international industry partners for systematic medical biomarker research.

## The Project: Innovative Use of Information for Clinical Care and Biomarker Research (IICCAB)

The CBmed project “IICCAB” aims at the innovative use of clinical data for healthcare and biomarker research. The core of IICCAB is SAP Connected Health, which processes and interprets large-scale clinical data sets drawn from routine patient care data found in electronic medical records (EMR) systems. These data are interpreted and integrated with biomarker data. Additional partners in IICCAB include the Medical University of Graz – with Biobank Graz, Institute for Medical Informatics and Statistics and Division of Endocrinology and Metabolism – as well as Steiermärkische Krankenanstaltengesellschaft m.b.H. (KAGes).

## Effective filtering of relevant data

Rather than dealing with the time-consuming review, processing and integration of extensive patient data, using SAP Connected Health software is intended to speed up the physician’s view of relevant patient information. In addition, researchers will be better able to identify qualified candidates for clinical trials, saving time and expense. Until now, this was a manual process that required lengthy searching of electronic and paper-based patient records.

"A particular difficulty is that findings and doctors’ letters, written in the typical physicians’ compact technical vocabulary, constitute a substantial part of the electronic patient records," said Stefan Schulz, MD, university professor for Medical Informatics and director of the IICCAB project. "Our success depends on how we are able to automatically distill the crucial information from these texts, using text-mining techniques."

## Targeted results for a personalized medicine of tomorrow

A typical patient EMR system contains thousands or even tens of thousands of data points, only a handful of which may be useful at a given moment. This information, however, is typically presented in a flat organizational structure, i.e., equal weight is given to all data points. That structure makes it difficult for physicians to bring forward the most relevant data points for the particular issue being addressed. This inability to narrow the information to the most critical factors can be a significant hindrance to the practice of personalized medicine, which tailors care to the individual based on

data.

By delivering a quick view of patient data, CBmed plans to overcome these limitations, helping physicians to focus their efforts on the biomarkers and other data.

### **Significant improvement for conducting clinical trials**

This same technology, developed within IICCAB, is also expected to improve the ability of researchers to recruit patients for clinical trials – often one of the most difficult challenges in bringing new pharmaceutical and biotech treatments to market. Widespread negative perception of clinical trials, lack of time within clinical routine care, and lack of knowledge about the trial details lead to the [failure of one-third of clinical trials to meet their recruitment targets](#). The ability of IICCAB to identify appropriate candidates for specific clinical trials, and highlight this information within the EMR to enable physicians to present it to patients during routine medical care, is expected to improve recruitment rates. Better clinical trials will bring life-changing and life-saving treatments to more of the people who need them faster.

“It is obvious that there is a need to improve the clinical trial recruitment process. Increasing efficiencies in connecting researchers, doctors and patients together to improve participation in clinical trials will dramatically help to advance medicine and find better treatments for patients,” said Harald Sourij, MD, Area Leader for Metabolism and Inflammation at CBmed. “That is why we at CBmed and the Medical University of Graz chose to work with the SAP Health team and SAP Connected Health software for this project. It provides the required in-memory computing capacity to digitalize the recruitment process. We expect the work we’re doing with all our partners to have a substantial effect on the way medicine is practiced in the future.”

Thomas Laur, SAP Health global president, commented, “Healthcare’s ability as an industry to accumulate massive amounts of data about each individual has long outpaced its ability to use that data effectively. Hidden within each patient’s record is a treasure trove of information that can help physicians make meaningful improvements in patients’ lives. We believe that CBmed’s IICCAB project is taking an innovative approach to correlate and parse the data to deliver highly useful and timely information. We are proud that they selected SAP Health technology to be the engine that drives this breakthrough.”

### **About CBmed GmbH (Center for Biomarker Research in Medicine)**

CBmed, an Austrian-funded competence center, links excellent research infrastructure, scientific expertise, medical knowledge, national and international industry partners for systematic medical biomarker research. CBmed brings together scientific experts with leading pharmaceutical, diagnostic, medical-technology and IT industry partners. In addition, CBmed has a strong network in the area of Biobanking including the largest Biobank in Europe, Biobank Graz, and the European Biobanking network BBMRI-ERIC. CBmed research projects will identify new biomarkers, validate potential biomarkers and conduct translational biomarker research for products to be used in clinical practice.

CBmed’s goal is to develop easily applicable, targeted, minimally invasive biomarkers for better diagnosis, better therapy monitoring and a more personalized treatment of patients.

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#### **Contact:**

Center for Biomarker Research in Medicine  
Stiftingtalstraße 5  
8010 Graz  
[office@cbmed.at](mailto:office@cbmed.at)  
+43 316 385 28801