



## Ypsomed Innovation Award

Business start-ups by award winners  
Implementation into products

### 2022

- 1. prize\*:** machineMD (University of Bern):  
machineMD has developed a system with which the movements of the eyes and pupils can be analysed via a virtual reality headset and thus various clinical pictures can be diagnosed.
- 2. prize\*:** Pace Locator (Bern University of Applied Sciences BFH):  
Pace Locator enables a three-dimensional visualisation of the position of the electrodes during the implantation of a pacemaker and thus reduces the probability of serious misplacements as well as the duration of these interventions.
- 3. prize\*\*:** Compact Motion (Bern University of Applied Sciences BFH):  
Compact Motion has developed a new type of linear motor that reduces the cycle times of pick-and-place systems thanks to its higher speed. The integrated motor control reduces the need for cabling and the integrated counterweight makes it more space-saving than today's linear motors.

### 2020

- 1. prize\*:** SurgeonsLab, Fredrick Johnson Joseph and Dr. David Bervini and Team, ARTORG Center of the University of Bern:  
A realistic, microsurgical 4D simulation environment of the brain from a lifelike, realistic phantom to be able to train preoperatively neurosurgical interventions and skills as in the operating theatre  
[www.surgeonslab.com](http://www.surgeonslab.com)
- 2. prize\*:** Babylat, Dr. Zina Yudina and Team, University of Bern, Sitem Insel:  
Babylat enricher automatically extracts the protein from donor milk to fortify breast milk for very low birth weight premature infants. The protein requirement is up to 4 times higher than human milk can provide  
[www.babylat.com](http://www.babylat.com)
- 3. prize\*\*:** 8photonics, Dr. Manuel Ryser, Philippe Raisin and Andres Luder, University of Bern:  
Development of a standardised innovation platform for building fibre laser systems for a wide range of applications (consisting of modular gratings and various functional modules)  
The products are on the market and several customers have already been acquired.  
[www.8photonics.com](http://www.8photonics.com)

Partner:



## 2018

- 1. prize\*\*:** Dr. Samuel Zürcher and team, Certus Diagnostics:  
Molecular rapid test platform for reliable on-site detection of specific pathogens  
[www.certusdiagnostics.com](http://www.certusdiagnostics.com)
- 2. prize:** Prof. Raphael Sznitman and team, ARTORG Center at University of Bern:  
Mobile perimetry – artificial intelligence for the eye
- 3. prize\*\*:** Dr. Jonas Pollard and team, Adolphe Merkle Institute at University of Fribourg / Hemolytics:  
Mass diagnosis for the eradication of malaria  
Hemolytics is a medical technology start-up based in the bilingual city of Fribourg, Switzerland. Originally a research project at the Adolphe Merkle Institute of the University of Fribourg, Hemolytics has evolved into an impact-driven spin-off with a pre-founding team.  
[www.hemolytics.ch](http://www.hemolytics.ch)

## 2016

- 1. prize\*\*:** Prof. Dr. Gregor Burkhard, University of Applied Sciences and Arts Northwestern Switzerland FHNW and Dominik Nägeli, formerly FHNW, now RUAG Space:  
GreDom-Insert, a novel kind of insert for space technology, revolutionising satellite construction  
[www.fhnw.ch](http://www.fhnw.ch)  
[digitalbytes.ch](http://digitalbytes.ch)
- 2. prize:** Prof. Dr. Mauricio Reyes, Institute for Surgical Technologies and Biomechanics at University of Bern:  
Automated methods for medical image processing in brain tumor studies
- 3. prize\*\*:** Prof. Dr. Alke Fink, Adolphe Merkle Institute at University of Fribourg:  
NanoLockin: a new technology for the characterisation of nanoparticles for cancer therapy  
[www.nanolockin.com/products](http://www.nanolockin.com/products)

## 2014

- 1. prize\*\*:** Team Simon Zumbrunnen, Philipp Haslebacher and Stefan Berger, Bern University of Applied Sciences BFH and ReseaChem GmbH:  
Micro-dosing unit for bioreactors  
[www.reseachem.ch/](http://www.reseachem.ch/)
- 2. prize\*\*:** Prof. Dr. Olivier Guenat, ARTORG Center at University of Bern:  
A breathing “lung on chip” for the safe and efficient development of new drugs. The company Alveolix AG was founded from the project.  
[www.alveolix.com](http://www.alveolix.com)
- 3. prize\*\*:** Prof. Dr. Patrice Nordmann, Institute for microbiology at University of Fribourg:  
Rapid diagnostic test against multi-resistant bacteria. The products are now distributed by the international diagnostics company Biomerieux.  
[www.biomerieux.com/](http://www.biomerieux.com/)

## 2012

- 1. prize\*\*:** Dr. Brett Bell, University of Bern:  
Minimally invasive robot-based cochlear implantation  
[www.cascination.com](http://www.cascination.com)
- 2. prize:** Prof. Dr. Barbara Rothen-Rutishauser, University of Fribourg:  
New bio-printing platform for a 3D lung tissue of the air-blood barrier
- 3. prize:** Prof. Dr. Martin Frenz, University of Bern:  
Nanostructured biodegradable polymer for endoscopic laser tissue soldering

## 2010

- 1. prize\*\*:** Prof. Dr. Hendrik Tevæearai, University of Bern:  
Cardioplexol – a novel cardioplegia solution  
[www.swisscardiotech.com/our-partners-our-customers/](http://www.swisscardiotech.com/our-partners-our-customers/)
- 2. prize:** Fabian Fässler, Bern University of Applied Sciences BFH:  
Coupled simulations for optimising modern manufacturing systems
- 3. prize\*\*:** Dr. Lennart Stieglitz, University of Bern:  
Combined irrigation and suction instrument for microneurosurgery  
[www.spiegelberg.de/en](http://www.spiegelberg.de/en)

## 2009

- 1. prize\*\*:** Matthias Peterhans, University of Bern:  
Development and clinical application of a navigation platform for computer-assisted liver surgery and robotic liver surgery and robotic cochlear implantation.  
[www.cascination.com](http://www.cascination.com)
- 2. prize:** Dr. Guoyan Zheng, University of Bern:  
Novel cost-effective system for high-precision placement of acetabular cup in total hip arthroplasty
- 3. prize:** Dario Cazzoli, University of Bern:  
Permanent and everyday relevant improvement of neurological disorders through transcranial magnetic stimulation

## 2008

- 1. prize\*\*:** Fabian Käser, Bern University of Applied Sciences BFH:  
Chemiluminescence - Innovative ways to predict oxidation reactions  
[www.reseachem.ch](http://www.reseachem.ch)
- 2. prize\*\*:** Prof. Dr. Walter Perrig, University of Bern:  
BrainTwister – brain-strengthening computer programme  
[www.synapsoflg.unibe.ch](http://www.synapsoflg.unibe.ch)
- 3. prize:** Prof. Dr. Hans-Ulrich Güdel, University of Bern:  
Novel scintillator materials - Detector materials for X-ray and gamma radiation

## 2007

- 1. prize:** Jonas Schmied, Bern University of Applied Sciences BFH:  
Generation and visualisation of robot paths
- 2. prize:** Mario Valentin Löffel, University of Bern:  
Development and clinical testing of a computer-assisted injection device for cement injections in the spinal column
- 3. prize\*\*:** Linus Rohner, Bern University of Applied Sciences BFH:  
Joysteer®, the new driving experience  
[www.bozzio.ch/](http://www.bozzio.ch/)

\* Business start-ups

\*\* Implementation into products