Tomas Ussing
Apparatingeniør, (DIA-EA)

Senior Consultant R&D
MD and IVD specialist

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Competences

- Diagnostics – 'Point-of-Care'
- Microfluidics
- Sensor development and integration
- Apparatus construction
- Industrial design
- Surface chemistry
- Biochemistry
- Laser machining (CO2, Excimer)
- Optics – laser/fluorescence/thermal
- Electronics and SW
- Patenting (8 issued patent families)
- FTO analysis, technical due diligence

Key results

Tomas and his engineering team developed a PCR-based diagnostic platform for human DNA mutation screening, that was capable of performing a mutation identification on a saliva sample in 15 minutes.
The project was hatced based on the invention of the 'laser driven peristaltic micropump'. It involved complex microfluidic design embedded in polymer disposables, laser-, fluorescence- and bolometer-optics and sensors and it involved complex biochemical reactions and accompanying handling of sensitive reagents.
Following this achievement Tomas and group have developed a number of microfluic test devices both 'works alone' and devices working with integrating electronic devices.

Personal Characteristics

Tomas is outgoing and communicative and thrives in the *interdisciplinary* technological field and with professionals of diverse technical backgrounds and experience levels. For the last +25 years he has been communicating with university professors, PhD-students, production- and development-engineers as well as with marketing and customers.

In his free time, he develops his 'off grid' summerhouse in Sweden with self sustained solar heater, active 'earth cooler' fridge and photovoltaic system.

Additionally Tomas is a judo black belt and he is involved with numerous outdoors activities (from free diving to kayaking and windsurfing)

References

FluimediX (2003 – present)

CEO, entrepreneur
Development of human- and veterinary diagnostics

Sophion Bioscience (2001-2002)

Development engineer
Research, integration of sensory electronics with cellular diagnostics for high throughput screening

Chempaq (1999-2001)

Development engineer
Integration of microfluidic silicon-based sensor for blood cell analysis.

Single chip processor design and programming

Informationsteknik Scandinavia (1997-1999)

Development engineer (SW)
UI design and programming of graphical info systems
Development of microphone systems

Mikro-snak (1995-1997)
Development engineer (HW & SW)
Chip card based access control