• > 750 employees
• System supplier - R&D - Production
• > 100 M € turnover
• ISO 9001 & ISO 13485
We are working on a better future in these areas

HIGH-TECH SYSTEMS & MATERIALS

SMART INDUSTRY

LIFE SCIENCES & HEALTH

MD

IVD

CT/RM
PVA: Patient Ventilator Asynchrony one example of problem causes in ICU

Possible causes of PVA, causing very often problems in ICU ventilation

- Delay of triggering and ineffective efforts
- Auto-triggering
- Premature cycling off
- Delayed cycling off
- Reverse triggering

Asynchronies related to a discrepancy between the needs of the patient and the ventilator assist

Occurs in 20 – 30% of cases with intubated patients, causing prolonged ventilation time and even higher mortality.
Prof. Diederik Gomers of Erasmus MC: “before pandemic I thought we do not need automatic recognition, because we have the experienced people who recognize this, but during pandemic I realized that we urgently need automatic systems based on Artificial Intelligence, because that would have helped us a lot in preventing from problems in ventilation and could have saved precious bedtime.”
• For Dutch government we developed complete ventilator system, based on our respiratory module, for Covid-19 patients
• Ventilator has full CE approval
Traditional autologous cell therapy

First passage
heterogeneous cell population

Second passage

Third passage + harvest
The Scinus Cell Expansion system

- Closed bioreactor system supporting GMP cell therapy production
- From biopsy to clinically relevant cell numbers
- Cost and labor reduction
- Quality improvement
- Optimal and controlled culture conditions

Direct seeding in bioreactor

Harvest clinically relevant cell numbers directly from bioreactor
The Scinus Cell Expansion system – Unique features

- Adherent bag
- Expansion Roller
- Rocker platform
- Oxygenator
Unique feature: Expansion Roller

Volume expandable

100 ml → 1400 ml

x14
Typical example: MSC expansion from biopsy

- Biopsy inoculation
- Dissolvable microcarriers
- Controlled culture (T, pH, DO)
- Continuous expansion

Bone marrow biopsy → RBC depletion / MSC enrichment → Scinus expansion
Typical example: MSC expansion from biopsy
Typical examples adherent cell culture

- Direct culture of bone marrow-derived stem cells (MSCs)
- Direct culture of adipose-derived stem cells (ASCs)
- Projects: MPC, UC, WJ, Exosome / EV production
- Preliminary results of human induced pluripotent stem cells (hiPSCs)
- Suspension bag (R&D version)
Productie technologie, toegang en opschaling is cruciaal voor de sector – RegMed XB creëert een nationale RG-pilotfabriek