NEW*

* HIGH EMOTION SIMULATION:
Our Paul – the world's smallest high-end patient simulator for highly realistic neonatal simulation training.

SIM CHARACTERS
HIGH EMOTION SIMULATION

Why the need for a neonatal simulation training?

One in ten children is born preterm. Thanks to continuous improvements and innovations in medical techniques, even babies born very prematurely, weighing between 500 and 1,000 grams, have excellent survival rates. Nevertheless, preterm birth remains the most common cause of death among infants.

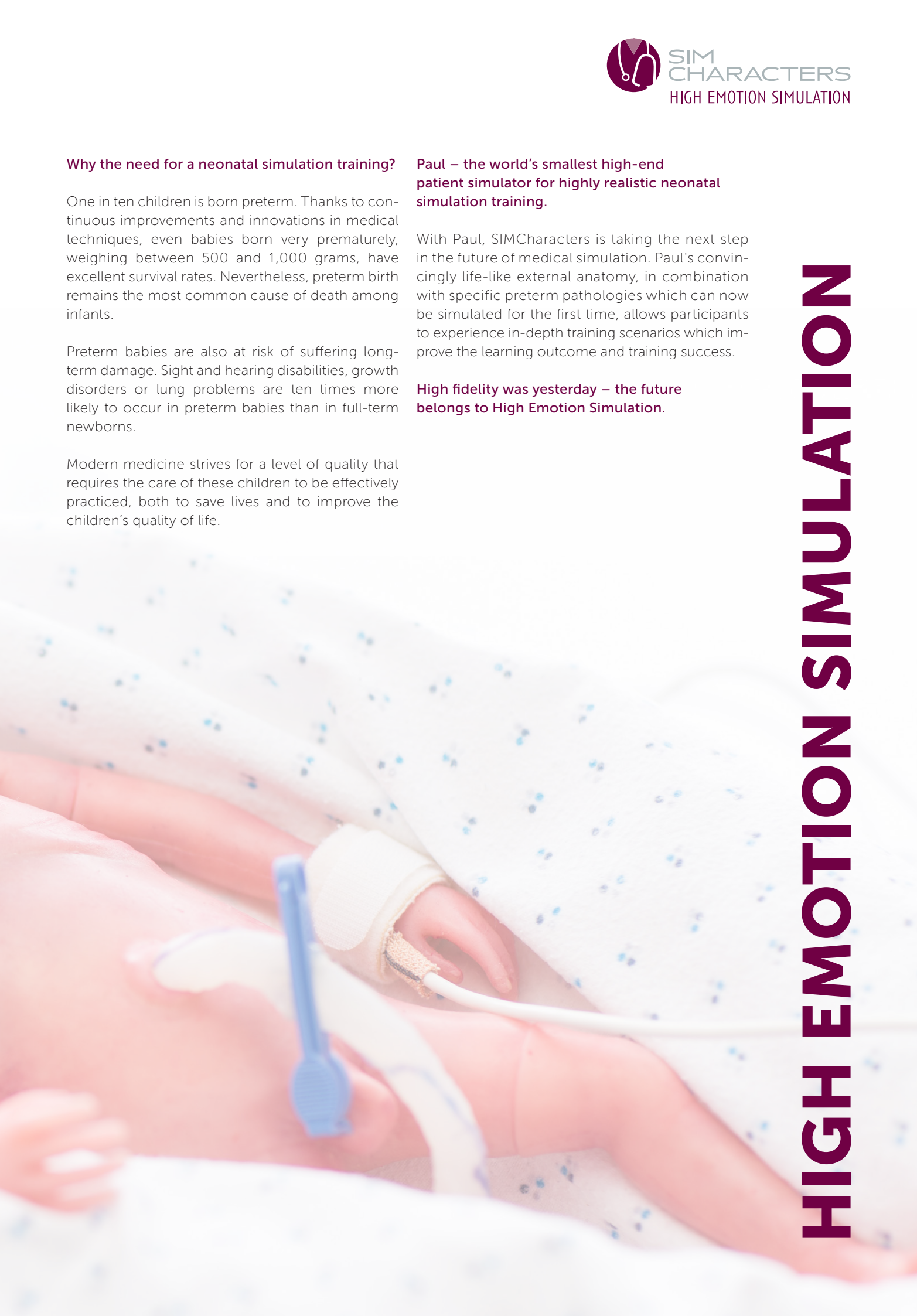
Preterm babies are also at risk of suffering long-term damage. Sight and hearing disabilities, growth disorders or lung problems are ten times more likely to occur in preterm babies than in full-term newborns.

Modern medicine strives for a level of quality that requires the care of these children to be effectively practiced, both to save lives and to improve the children's quality of life.

Paul – the world's smallest high-end patient simulator for highly realistic neonatal simulation training.

With Paul, SIMCharacters is taking the next step in the future of medical simulation. Paul's convincingly life-like external anatomy, in combination with specific preterm pathologies which can now be simulated for the first time, allows participants to experience in-depth training scenarios which improve the learning outcome and training success.

High fidelity was yesterday – the future belongs to High Emotion Simulation.



HIGH EMOTION SIMULATION

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With a size of 35 cm and a weight of 1,000 g, Paul is an accurate recreation of a baby born preterm in the 27th gestational week.

He was developed by experts in the field of preterm medical care, special effects design and animatronics. His internal and external anatomy is a like-for-like copy of a preterm baby.

It is possible to practice endotracheal intubation and special neonatal care strategies (such as LISA or INSURE) under real-life conditions for the first time thanks to the highly realistic upper airway.

THIS IS PAUL

Pathological breathing patterns (nasal flaring, paradoxical respiration, substernal retractions, groaning/grunting)

Cyanosis and hyperoxia

Highly realistic upper airway, ideal for practicing endotracheal intubation and special neonatal care strategies (LISA, INSURE)

Mechanical ventilation using bag-mask and Perivent systems

Automatic tube position detection during intubation

Auscultatory respiratory, heart and intestinal noises

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PLUG 'N' TRAIN

Paul is part of a highly mobile simulation system: patient simulator, control laptop and vital signs monitor are ready for use within minutes, easy to transport and therefore ideal for on-site use and training scenarios at different sites.

- → Completely wireless operation
- → Data transfer via Wi-Fi
- → Wireless battery charging
- → Up to 1.5 hours of operating time
- → Choice of different models for control laptop and vital signs monitor, fully customized to your needs

Physiological and pathological lung parameters for machine-assisted ventilation

Sensors to detect the correct position and depth of an umbilical venous catheter

Palpable pulse on the umbilical cord and all four extremities

Replaceable extremities

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The entire system comprises the preterm baby simulator Paul, the management computer with control software and a patient monitor. Paul is controlled and operated without the need for any wires.

Paul and his patient monitor are controlled using the intuitive user interface developed specifically for High Emotion Simulation. The graphical user interface integrated into Paul's 3D simulation also offers the trainer team a completely new and unique simulation experience.

- → Controlling via 3D simulation of the patient simulator
- → Real-time display of all simulator conditions (e.g. chest compressions, airway depth and UVC position).
- → Monitoring parameters can be changed quickly and easily using the control laptop (e.g. parameter display, curve position and color code)
- → Simple programming of basic settings and scenarios

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THE TEAM

"Caring for a preterm baby is highly complex, time-critical and extremely challenging. SIMCharacters has set itself the objective of improving the quality of care for critically ill preterm and newborn babies on a sustainable basis – this is why we have developed Paul."

Dr. Jens-Christian Schwindt
Neonatologist and CEO

"Realistic simulation training has long been a fixed part of training and development in high-risk industries such as aviation. We developed Paul to help make highly realistic training a matter of course in the field of preterm medical care."

Michael Hoffmann
Head of Finance and
Business Development

"One of our objectives when developing Paul was to make his external appearance as lifelike as possible and thus almost indistinguishable from a real preterm baby. The more realistic Paul is seen to be by the training participants, the more intense the emotional attachment and thus the learning success."

Elentári T. Nepomucky
Head of Product Design

"Not only is Paul deceptively lifelike on the outside, he also has a highly sophisticated inner body. We have been able to enhance and miniaturize cutting-edge components from areas such as microelectronics, sensor technology, mechanics and animatronics. This makes Paul the first preterm baby training model in the world that can realistically simulate specific pathologies."

Michael Haller
Head of Research and Development

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