# Contents


**1 The Case for Health 4.0** . . . . . 1
Christoph Thuemmler

**2 Health 4.0: Application of Industry 4.0 Design Principles in Future Asthma Management** . . . . . 23
Christoph Thuemmler and Chunxue Bai

**3 Data Traffic Forecast in Health 4.0** . . . . . 39
Alois Paulin

**4 Smart Pharmaceuticals** . . . . . 61
Bruce G. Bender, Henry Chrystyn and Bernard Vrijens

**5 Surgery 4.0** . . . . . 91
Hubertus Feussner, Daniel Ostler, Michael Kranzfelder, Nils Kohn, Sebastian Koller, Dirk Wilhelm, Christoph Thuemmler and Armin Schneider

**6 #FocusOnTheEndUser: The Approach to Consumer-Centered Healthcare** . . . . . 109
Matthias Mettler

**7 Virtualization of Health Care: The Role of Capacity Building** . . . . 125
Ai Keow Lim

**8 E-Health in China** . . . . . 155
Chunxue Bai

**9 Mobile Edge Computing** . . . . . 187
Swaroop Nunna and Karthikeyan Ganesan

**10 A Health 4.0 Based Approach Towards the Management of Multiple Sclerosis** . . . . . 205
Nikolaos Grigoriadis, Christos Bakirtzis, Christos Politis, Kostas Danas, Christoph Thuemmler and Ai Keow Lim

**11 Towards Trust and Governance in Integrated Health and Social Care Platforms** . . . . . 219
William Buchanan, Christoph Thuemmler, Grzegorz Spyra, Adrian Smales and Biraj Prajapati

**12 Security for Cyber-Physical Systems in Healthcare** . . . . . 233
Kashif Saleem, Zhiyuan Tan and William Buchanan

**Index** . . . . . 253

http://www.springer.com/978-3-319-47616-2

Health 4.0: How Virtualization and Big Data are Revolutionizing Healthcare

Thuemmler, C.; Bai, C. (Eds.)

2017, XII, 254 p. 78 illus., 75 illus. in color., Hardcover
ISBN: 978-3-319-47616-2