Scientific Aspects of Women's Gymnastics
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We would like to dedicate this book to all the gymnasts, parents, coaches, sport scientists, healthcare professionals, and gymnastics organizations who have individually and collectively contributed to the extensive body of knowledge about women’s gymnastics.

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To Barry, Hester, Jeni and Keith

W.A.S.
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Brief Biographies

William A. Sands is the Director of Research and Development for USA Gymnastics, a former chair of sport science for USA Gymnastics, and Vice Chair for Research for the US Elite Coaches Association for Women’s Gymnastics. Dr. Sands was an all-American gymnast and gymnastics coach of many US national team members, Olympians, and World Championships team members. Dr. Sands also served as the Assistant World Championships Coach in 1979. In total, Dr. Sands has worked with women’s gymnastics for over 35 years, and served on the US National Team Staff since 1979. He has written more than 10 books and over 100 articles on gymnastics. Dr. Sands received his PhD from the University of Utah in exercise physiology. He currently serves as the Department Chair of Exercise Science and Sports Medicine at California Lutheran University.

Dennis J. Caine is an internationally recognized authority on the epidemiology of injury in sports. His research and writing – much of it on pediatric sports injuries – has been widely published. Most notably, his articles on growth plate and gymnastics injuries resulted from his collaboration in several auxological and injury epidemiology studies. A frequent speaker on the subject at conferences and meetings held around the world, he is a Professor in the Department of Physical Education, Health and Recreation at Western Washington University. Dennis holds a PhD in Human Growth and Development from the University of Oregon and currently serves on the Editorial Review Board for the Clinical Journal of Sport Medicine and for The Physician and Sportsmedicine. He is an Associate Member of USA Gymnastics and serves as a consultant for the Sports Science Referral Network, USA Gymnastics Athlete Wellness Program.
Jan Borms is since 2001 a Professor Emeritus of Human Biometry and Health Promotion. He received his PhD from the Vrije Universiteit Brussel (VUB), Belgium. He was formerly Head of the Department of Human Biometry and Biomechanics at the Faculty of Physical Education at the VUB. He was the first (founding) President of ISAK, the International Society for the Advancement of Kinanthropometry. Dr. Borms served for many years as Secretary General of the Research Committee of ICSSPE, the International Council of Sport Science and Physical Education. He now chairs ICSSPE’s Editorial Board. He published widely in the field of kinanthropometry, human growth and health promotion and has spoken at many conferences around the world. Since 1972 he has commentated for the Belgian television all World and Olympic gymnastics competitions. Dr. Borms is also the Editor of the Karger Series ‘Medicine and Sport Science’.