FOREWORD TO SPECIAL ISSUE ON SIGNAL PROCESSING AND
MODELING IN BIOMEDICAL SYSTEMS

Critical Reviews in Biomedical Engineering has a long tradition of publishing survey papers
dealing with basic or emerging topics. Such contributions provide researchers key elements
to pursue (objectives, state of the art, trends, open questions) and an intensive and updated
bibliography to which they can refer. This issue, thanks to Editor John Bourne, emphasizes
how modeling may feed biomedical processing and how biomedical processing can add to
a deeper understanding of the processes to be monitored and diagnosed. They can, together,
lead to new breakthroughs impacting health care. Anesthesiology, which involves complex
interacting systems, is an area where much remains to be done. There is no unique way to
address such challenging problems and, therefore, the confrontation of viewpoints is of
importance to achieving significant advances.

I am indebted to the all contributors for the time they dedicated to its preparation. It has
been been a genuine pleasure working with them.

Jean-Louis Coatrieux
Guest Editor