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and Peter Stadler (Editors)

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# Preface

This volume contains papers presented at the German Conference on Bioinformatics, GCB 2009, held in Halle (Saale), Germany, September 28-30, 2009. The German Conference on Bioinformatics is an annual, international conference, which provides a forum for the presentation of current research in bioinformatics and computational biology. It is organized on behalf of the Special Interest Group on Informatics in Biology of the German Society of Computer Science (GI) and the German Society of Chemical Technique and Biotechnology (Dechema) in cooperation with the German Society for Biochemistry and Molecular Biology (GBM).

Six leading scientists were invited to give keynote lectures to the conference. Svante Pääbo spoke on “A Neandertal Perspective on Human Origins”, David Fell on “Building and Analyzing Genome-Scale Models of Metabolism”, and Ewan Birney on “Ensembl and ENCODE: Understanding our genome and its variation”. The focus of GCB 2009 — applying bioinformatics approaches to the field of plant science — is reflected in the keynotes “Phenotyping of Plants: Quantification of Structure and Function — Concepts and Infrastructure” by Ulrich Schurr and “Challenges of utilizing plant genetic resources” by Andreas Graner. The lecture by Theo van Hintum on “The role of bioinformatics in a global attempt to fight hunger” was given open to the general public.

The scientific program comprised 22 contributed talks presenting 18 regular and four short papers. These were selected from a total of 47 submissions after review by the program committee. All regular papers and one short paper are collected in this proceedings. The remaining short papers and the 128 poster abstracts accepted to be presented at the poster session are published in a separate volume.

We like to thank all program committee members and all local organizers and helpers for the efforts. Thanks are also due to all contributing to and participating in GCB 2009 and the sponsors for their financial support of the conference. Special thanks to Matthias Hübenthal for compiling these proceedings.

August 2009,

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