DILS 2004 (Data Integration in the Life Sciences) is a new bioinformatics workshop focusing on topics related to data management and integration. It was motivated by the observation that new advances in life sciences, e.g., molecular biology, biodiversity, drug discovery and medical research, increasingly depend on bioinformatics methods to manage and analyze vast amounts of highly diverse data. Relevant data is typically distributed across many data sources on the Web and is often structured only to a limited extent. Despite new interoperability technologies such as XML and web services, integration of data is a highly difficult and still largely manual task, especially due to the high degree of semantic heterogeneity and varying data quality as well as specific application requirements.

The call for papers attracted many submissions on the workshop topics. After a careful reviewing process the international program committee accepted 13 long and 2 short papers which are included in this volume. They cover a wide spectrum of theoretical and practical issues including scientific/clinical workflows, ontologies, tools/systems, and integration techniques. DILS 2004 also featured two keynote presentations, by Dr. Thure Etzold (architect of the leading integration platform SRS, and president of Lion Bioscience, Cambridge, UK) and Prof. Dr. Svante Pääbo (Director, Max Planck Institute for Evolutionary Anthropology, Leipzig).

The workshop took place during March 25–26, 2004, in Leipzig, Germany, and was organized by the Interdisciplinary Bioinformatics Center (IZBI) of the University of Leipzig. IZBI was founded in 2002, and became one of five German bioinformatics centers funded by the German Research Association (DFG) after a highly competitive selection process. The University of Leipzig, founded in 1409, has chosen biotechnology as one of its high priority fields. Its new Center for Biotechnology and Biomedicine was established in 2003 and closely cooperates with IZBI and other research institutes as well as with industrial partners.

As the workshop chair and editor of this volume, I would like to thank all authors who submitted papers, as well as the program committee members and additional referees for their excellent work in evaluating the submissions. Special thanks go the Max Planck Institute for Evolutionary Anthropology for providing us with their new facilities to run the workshop, and the IZBI organization team, in particular Hai Hong Do, Toralf Kirsten and Hans Binder. Finally, I would like to thank Alfred Hofmann and his team at Springer-Verlag for their cooperation and help in putting this volume together.

Leipzig, February 2004
Erhard Rahm
Workshop Chair
International Workshop on Data Integration in the Life Sciences (DILS 2004)

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For more information on the workshop please visit the workshop website under the URL http://www.izbi.de/dils04/