## Introduction

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The papers in this volume have been presented at the 'Symposium On the Paleogene Preparing for Modern Life and Climate', held in Leuven, Belgium, 25-30 August 2003, and organized by the International Subcommission on Paleogene Stratigraphy. The papers selected in this volume are dealing with the North Sea Paleogene.

In this volume:

- An update is given of the Late Cretaceous and Cenozoic sequence stratigraphic framework of the sediments along the southern border of the North Sea basin.
- The correlation potential of pyritized diatoms is discussed for the Upper Paleocene and Lower Eocene sediments.
- The change in clay mineralogy between Eocene and Oligocene sediments is analyzed in a rigorous stratigraphic context.
- New data are presented on earliest Oligocene mammalia in a classical vertebrate fossil area in Belgium.

- Using oxygen isotopes, the large cooling event at the beginning of the Oligocene is traced and its position is situated with respect to the chronostratigraphy of the classical Lower Oligocene outcrop area in Belgium.
- Two contributions deal with the Rupelian stratigraphy. Molluscan plankton events are discussed in relation to sea levels. Rock magnetism of the Boom Clay in the Rupelian stratotype is analyzed followed by magnetostratigraphic conclusions.
- Benthic foraminifera of the Late Oligocene are used as paleotemperature proxies and indicate a warming event during the Chattian.
- The Rupelian-Chattian boundary characteristics are discussed in the historical stratotype areas of the Rupelian and the Chattian stages and the calibration of this North Sea boundary to the international time-scale is analyzed.