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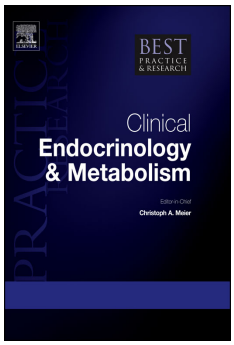

Hormones in Milk – new directions

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Andreas Höflich and Wieland Kiess

Preface

> 'Animal milks, and milk foods, such as curds, yoghurts and cheese, are excellent sources of protein, fat and many micronutrients, such as calcium (but not iron)'.

This is the official position of the Food and Agriculture Organization of the United Nations (FAO) and part of the Family Nutrition Guide (1) available in six languages worldwide. In fact, worldwide production of milk has steadily increased, with an average projected increase of 1.8% a year until 2025 (2). As discussed in the August 2017 (31.4) issue of *Best Practice and Research Clinical Endocrinology and Metabolism* (Hormones in Milk), milk not only contains macro- and micronutrients but is also a rich source of multiple bioactive compounds and hormones. In Volume 2, we discuss new directions of hormones and bioactive compounds in milk.

A discussion of milk hormones requires standardized methods of sampling, storage and analyte quantification. Wagner *et al*. introduce the issue by discussing multiple conditions that need to be defined for generating 'normative' data from milk hormones. The authors identify and discuss several effectors that influence hormone concentrations in milk. It is also important to consider diurnal changes of hormone concentrations in milk. Changes of hormone concentrations within the day have physiological relevance for the suckling infant, and this needs to be considered when interpreting absolute hormone concentrations. Stage of lactation, nutritional status or other endogenous maternal factors, including medication or