

## Letters to the Editor

### Binding of Drugs in Milk: The Role of Casein in Milk Protein Binding—Comments on the Paper by Stebler and Guentert

The recently published work by Stebler and Guentert (1) discusses the role of casein in milk protein binding. We wish to express our strong concern that the authors neglected to cite in the introductory section references to prior work in the field, thus disregarding our contribution.

Binding experiments of nitrofurantoin, sulfamethizole, and dicumarol with casein, as the major component of milk proteins, were performed in the course of the studies dealing with freeze-dried drug-milk formulations (2,3). The specific problem of the extent of drug binding to casein in relation to milk binding has been also studied (4) using hydrochlorothiazide and chlorothiazide as model drugs.

P. Macheras  
C. Reppas  
*Department of Pharmacy  
University of Athens  
104, Solonos str.  
Athens 10680, Greece*

S. Antimisiaris  
*Department of Pharmacy  
University of Patra  
Rio, Patra 26210, Greece*

#### REFERENCES

1. T. Stebler and T. W. Guentert. *Pharm. Res.* 7:633-637 (1990).

2. P. Macheras and C. Reppas. *J. Pharm. Sci.* 75:692-696 (1986).
3. P. Macheras and C. Reppas. *J. Pharm. Sci.* 75:1145-1150 (1986).
4. P. Macheras, M. Koupparis, and S. Antimisiaris. *J. Pharm. Sci.* 77:334-336 (1988).

#### Reply to Macheras *et al.*

We recently reported on the role of protein binding in human milk and plasma as determinants of milk excretion and transfer of drug to neonates (1). We are grateful to Macheras and colleagues for pointing out their own work with bovine protein solutions and bovine milk. However, we note that their investigations had an entirely different research objective. Macheras *et al.* (for references see above "Letter to the Editor") studied the use of milk lyophilisates as solubility enhancers and as a means to improve absorption of orally administered drugs. As a consequence of the divergence in study objectives, different experimental methods and conditions were used, making a comparison of their results with ours difficult.

T. Stebler  
T. W. Guentert  
*Department of Clinical Research  
F. Hoffmann-La Roche Ltd.  
Grenzacherstr. 124  
4002 Basel, Switzerland*

#### REFERENCES

1. T. Stebler and T. W. Guentert. *Pharm. Res.* 7:633-637 (1990).