Introduction

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Within the present decade, impressive advances in knowledge have occurred regarding the influence of the kidney upon urate homeostasis in man. These data, attained through studies carried out in animal models and in man, have substantially altered some concepts which have been held firmly within the past decade. While our understanding of the role of the kidney in urate homeostasis is not complete, it appears appropriate at this time to review the present state of knowledge. This symposium hopefully will allow the readers of Nephron to more effectively apply these newly developed concepts at the bedside and will provoke further interest in exploring those aspects of renal urate physiology which remain unresolved.

Sorensen and Levinson initiate the symposium by reviewing the origin and excretion of uric acid in man, thereby establishing the determinants of the requirement for renal urate excretion. Then, Steele and Rieselbach discuss current concepts of renal urate excretion in normal man. They conclude that many questions remain unresolved, and in some detail point out the need for appropriate animal models as well as further studies in man. Weiner and Fanelli review our present fund of knowledge gained from animals studies, with particular emphasis on primate models, which appear to hold the most promise as a model most relevant to man. The final contribution relating to normal physiology is by Steele, Manuel and Boner, who describe the influence of pharmacological maneuvers on the normal mechanism for urate excretion in man, with particular emphasis on acetazolamide and other diuretics.

The second portion of the symposium deals with disturbances of urate homeostasis which occur on the basis of disordered renal urate excretion. Emerson and Ravenscroft review the many systemic disorders which are