# Molecular Aspects

## Contents of Volume 193, No. 2, 1981

### Peptide and Protein Structures

Studies of pyruvate–water isotope exchange catalysed by erythrocytes and proteins  
401–406

Kinetic and equilibrium metal-ion-binding behaviour reflec
ted in a metal-ion-dependent antigenic determinant in bovine prothrombin. Comparison with bovine prothrom-in fragment 1  
D. A. Madar, T. J. Hall, R. G. Hiskey & K. A. Koehler  
411–418

Chemical properties of the functional groups of insulin  
Y.-K. Chan, G. Oda & H. Kaplan  
419–425

Characterization of collagenous and non-collagenous pep-
tides of a glycoprotein isolated from alveoli of patients with alveolar proteinosis  
S. N. Bhattacharyya  
447–457

The preparation and properties of folate-binding protein from cow’s milk  
D. N. Salter, K. J. Scott, H. Slade & P. Andrews  
469–476

Structural studies of eukaryotic cytochrome c modified at methionine-65  
A. P. Boswell, G. R. Moore, R. J. P. Williams, C. J. A. Wallace, P. J. Boon, R. J. F. Nivard & G. I. Tesser  
525–539

Identification of ‘buried’ lysine residues in two variants of chloramphenicol acetyltransferase specified by R-factors  
L. C. Packman & W. V. Shaw  
541–552

The use of naturally occurring hybrid variants of chloram-
phenicol acetyltransferase to investigate subunit contacts  
J. Keski-Oja & K. M. Yamada  
615–620

Isolation of an actin-binding fragment of fibronectin  
K. Yonemasu & T. Sasaki  
621–629

Purification and characterization of subcomponent C1q of the first component of mouse complement  
C. A. Auffret & M. J. Turner  
647–650

Variant specific antigens of *Trypanosoma brucei* exist in solution as glycoprotein dimers  

### Enzymes and Enzyme Kinetics

Purification and characterization of a thermostable gluco-
amylase from the thermophilic fungus *Thermomyces lanuginosus*  
V. Basaveswara Rao, N. V. S. Sastri & P. V. Subba Rao  
379–387

Thermal stabilization of glucose oxidase and glucoamylase by physical entrapment  
V. Basaveswara Rao, N. V. S. Sastri & P. V. Subba Rao  
389–394

The molecular-weight dependence of the rate-enhancing effect of heparin on the inhibition of thrombin, Factor Xₐ, Factor IXₐ, Factor XIₐ, Factor XIIₐ and kallikrein by antithrombin  
E. Holmer, K. Kurachi & G. Söderström  
395–400

Glucose 6-phosphate activation of pyruvate kinase from *Mycobacterium smegmatis*  
R. Kapoor & T. A. Venkitasubramanian  
435–440

Kinetic studies of the mechanism of pig kidney aldehyde reductase  
F. F. Morpeth & F. M. Dickinson  
485–492

Affinity-chromatographic purification of *S*-adenosyl-l-homo-
cysteine hydrolase. Some properties of the enzyme from rat liver  
E. O. Kajander & A. M. Raina  
503–512

Purification and properties of D-ribulokinase and D-xylulo-
kinase from *Klebsiella aerogenes*  
M. S. Neuberger, B. S. Hartley & J. E. Walker  
513–524

The binding of monosaccharide inhibitors to hen egg-white lysosome by proton magnetic resonance at 270MHz and analysis by ring-current calculations  
553–572

---

(iv)
## Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>The simultaneous binding of lanthanide and N-acetylglucosamine inhibitors to hen egg-white lysozyme in solution by $^1$H and $^{13}$C nuclear magnetic resonance</td>
<td>S. J. Perkins, L. N. Johnson, D. C. Phillips &amp; R. A. Dwek</td>
<td>573–588</td>
</tr>
<tr>
<td>Mouse macrophage elastase. Purification and characterization as a metalloproteinase</td>
<td>M. J. Banda &amp; Z. Werb</td>
<td>589–605</td>
</tr>
<tr>
<td>Calcium-binding constants of trypsin and trypsinogen. A reassessment</td>
<td>S. G. R. Cliff &amp; D. A. W. Grant</td>
<td>655–658</td>
</tr>
<tr>
<td><strong>Metalloproteins</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence on freezing of the geometry and redox potential of Type 1 and Type 2 copper sites of Japanese-lacquer-tree (Rhus vernicifera) laccase</td>
<td></td>
<td>639–642</td>
</tr>
<tr>
<td><strong>Gene Structure and Function</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence of a secondary phage lambda attachment site located between the pentitol operons of <em>Klebsiella aerogenes</em></td>
<td>T. Loviny, M. S. Neuberger &amp; B. S. Hartley</td>
<td>631–637</td>
</tr>
<tr>
<td><strong>Lipids</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The hydrolysis of phosphatidylinositol monolayers at an air/water interface by the calcium-ion-dependent phosphatidylinositol phosphodiesterase of pig brain</td>
<td>K. Hirasawa, R. F. Irvine &amp; R. M. C. Dawson</td>
<td>607–614</td>
</tr>
<tr>
<td>Interaction of glycosphingolipids with melittin and myelin basic protein in monolayers</td>
<td>G. D. Fidelio, B. Maggio, F. A. Cumar &amp; R. Caputto</td>
<td>643–646</td>
</tr>
<tr>
<td><strong>Carbohydrates and Complex Carbohydrates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selective binding of zinc ions to heparin rather than to other glycosaminoglycans</td>
<td>R. F. Parrish &amp; W. R. Fair</td>
<td>407–410</td>
</tr>
<tr>
<td>Binding to antithrombin of heparin fractions with different molecular weights</td>
<td>Á. Danielsson &amp; I. Björk</td>
<td>427–433</td>
</tr>
<tr>
<td>Age-related changes in the chemical composition of bovine articular cartilage. The structure of high-density proteoglycans</td>
<td>H. G. Garg &amp; D. A. Swann</td>
<td>459–468</td>
</tr>
<tr>
<td>The effect of tsushimycin on the synthesis of lipid-linked saccharides in aorta</td>
<td>A. D. Elbein</td>
<td>477–484</td>
</tr>
<tr>
<td>Deficient phosphorylation of mannose residues of mannan in fibroblasts of patients with mucolipidoses II and III</td>
<td>Y. Ben-Yoseph, L. C. Hahn, C. L. DeFranco &amp; H. L. Nadler</td>
<td>651–654</td>
</tr>
</tbody>
</table>