Peter Ray
Professor of Biological Sciences, Emeritus
Biology

Bio

ACADEMIC APPOINTMENTS
- Emeritus Faculty, Acad Council, Biology
- Professor Emeritus, Biology

Publications

PUBLICATIONS
- A reversibly glycosylated polypeptide (RGP1) possibly involved in plant cell wall synthesis: Purification, gene cloning, and trans-Golgi localization *Proceedings of the National Academy of Sciences of the United States of America*
  Dhugga, K. S., Tiwari, S. C., Ray, P. M.
  1997; 94 (14): 7679-7684

- Purification of 1,3-beta-D-glucan synthase activity from pea tissue - 2 polypeptides of 55 kDa and 70 kDa copurify with enzyme-activity *European Journal of Biochemistry*
  Dhugga, K. S., Ray, P. M.
  1994; 220 (3): 943-953

- Molecular-size and separability features of pea cell-wall polysaccharides - implications for models of primary wall structure *Plant Physiology*
  Talbott, L. D., Ray, P. M.
  1992; 98 (1): 357-368

- Changes in molecular-size of previously deposited and newly synthesized pea cell-wall matrix polysaccharides - effects of auxin and turgor *Plant Physiology*
  Talbott, L. D., Ray, P. M.
  1992; 98 (1): 369-379

- Plant polypeptides reversibly glycosylated by UDP-glucose - possible components of Golgi beta-glucan synthase in pea cells *Journal of Biological Chemistry*
  Dhugga, K. S., Ulvskov, P., Gallagher, S. R., Ray, P. M.
  1991; 266 (32): 21977-21984

- Isoelectric-focusing of plant plasma-membrane proteins - further evidence that a 55 kilodalton polypeptide is associated with beta-1,3-glucan synthase activity from pea *Plant Physiology*
  Dhugga, K. S., Ray, P. M.
  1991; 95 (4): 1302-1305

- A 55 kDa plasma membrane-associated polypeptide is involved in beta-1,3-glucan synthase activity in pea tissue *FEBS Letters*
  Dhugga, K. S., Ray, P. M.
  1991; 278 (2): 283-286
• AUXIN ENHANCEMENT OF MESSENGER-RNAS IN EPIDERMIS AND INTERNAL TISSUES OF THE PEA STEM AND ITS SIGNIFICANCE FOR CONTROL OF ELONGATION PLANT PHYSIOLOGY
Dietz, A., Kutschera, U., Ray, P. M.
1990; 93 (2): 432-438

• LIGHT-MEDIATED CHANGES IN 2 PROTEINS FOUND ASSOCIATED WITH PLASMA-MEMBRANE FRACTIONS FROM PEA STEM SECTIONS PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA
Gallagher, S., Short, T. W., Ray, P. M., Pratt, L. H., Briggs, W. R.
1988; 85 (21): 8003-8007

• EFFECT OF INDOLEACETIC ACID-STIMULATED AND FUSICOCCIN-STIMULATED PROTON EXTRUSION ON INTERNAL PH OF PEA INTERNODE CELLS PLANT PHYSIOLOGY
Talbott, L. D., Ray, P. M., Roberts, J. K.
1988; 87 (1): 211-216

• INVolvement of MACROMOLECULE BIOSYNTHESIS IN AUXIN AND FUSICOCCIN ENHANCEMENT OF BETA-GLUCAN SYNTHASE ACTIVITY IN PEA PLANT PHYSIOLOGY
Ray, P. M.
1987; 85 (2): 523-528

• AUXIN AND FUSICOCCIN ENHANCEMENT OF BETA-GLUCAN SYNTHASE IN PEA - AN INTRACELLULAR ENZYME-ACTIVITY APPARENTLY MODULATED BY PROTON EXTRUSION PLANT PHYSIOLOGY
Ray, P. M.
1985; 78 (3): 466-472

• REGULATION OF CYTOPLASMIC AND VACUOLAR PH IN MAIZE ROOT-TIPS UNDER DIFFERENT EXPERIMENTAL CONDITIONS PLANT PHYSIOLOGY
Roberts, J. K., Wemmer, D., Ray, P. M., Jardetzky, O.
1982; 69 (6): 1344-1347

• EARLY AUXIN-REGULATED POLYADENYLYLATED MESSENGER-RNA SEQUENCES IN PEA STEM TISSUE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA-BIOLOGICAL SCIENCES
Theologis, A., Ray, P. M.
1982; 79 (2): 418-421

• EVIDENCE FOR RECEPTOR FUNCTION OF AUXIN BINDING-SITES IN MAIZE - RED-LIGHT INHIBITION OF MESOCOTYL ELONGATION AND AUXIN BINDING PLANT PHYSIOLOGY
Walton, J. D., Ray, P. M.
1981; 68 (6): 1334-1338

• PH-DEPENDENT INTERACTIONS BETWEEN PEA CELL-WALL POLYMERS POSSIBLY INVOLVED IN WALL DEPOSITION AND GROWTH PLANT PHYSIOLOGY
Bates, G. W., Ray, P. M.
1981; 68 (1): 158-164

• LABELING OF PLASMA-MEMBRANE OF PEA CELLS BY A SURFACE-LOCALIZED GLUCAN SYNTHETASE PLANT PHYSIOLOGY
Anderson, R. L., Ray, P. M.
1978; 61 (5): 723-730

• AUXIN-BINDING SITES OF MAIZE COLEOPTILES ARE LOCALIZED ON MEMBRANES OF ENDOPLASMIC-RETICULUM PLANT PHYSIOLOGY
Ray, P. M.
1977; 59 (4): 594-599

• PHOSPHOLIPID-SYNTHESIZING ENZYMES ASSOCIATED WITH GOLGI DICTYOSOMES FROM PEA TISSUE PLANT PHYSIOLOGY
Montague, M. J., Ray, P. M.
1977; 59 (2): 225-230

• SPECIFICITY OF AUXIN-BINDING SITES ON MAIZE COLEOPTILE MEMBRANES AS POSSIBLE RECEPTOR-SITES FOR AUXIN ACTION PLANT PHYSIOLOGY
Ray, P. M., Dohrmann, U., Hertel, R.
1977; 60 (4): 585-591

- CHARACTERIZATION OF NAPHTHALENEACETIC ACID BINDING TO RECEPTOR-SITES ON CELLULAR MEMBRANES OF MAIZE COLEOPTILE TISSUE. *PLANT PHYSIOLOGY*
  Ray, P. M., Dohrmann, U., Hertel, R.
  1977; 59 (3): 357-364

- RAPID AUXIN-INDUCED DECREASE IN FREE SPACE PH AND ITS RELATIONSHIP TO AUXIN-INDUCED GROWTH IN MAIZE AND PEA. *PLANT PHYSIOLOGY*
  Jacobs, M., Ray, P. M.
  1976; 58 (2): 203-209

- PROMOTION OF XYLOGLUCAN METABOLISM BY ACID PH. *PLANT PHYSIOLOGY*
  Jacobs, M., Ray, P. M.
  1975; 56 (3): 373-376

- TURNOVER OF CELL-WALL POLYSACCHARIDES IN ELONGATING PEA STEM SEGMENTS. *PLANT PHYSIOLOGY*
  Labavitch, J. M., Ray, P. M.
  1974; 53 (5): 669-673

- RELATIONSHIP BETWEEN PROMOTION OF XYLOGLUCAN METABOLISM AND INDUCTION OF ELONGATION BY INDOLEACETIC-ACID. *PLANT PHYSIOLOGY*
  Labavitch, J. M., Ray, P. M.
  1974; 54 (4): 499-502

- REGULATION OF BETA-GLUCAN SYNTHETASE-ACTIVITY BY AUXIN IN PEA STEM TISSUE. 2. METABOLIC REQUIREMENTS. *PLANT PHYSIOLOGY*
  Ray, P. M.
  1973; 51 (4): 609-614

- REGULATION OF BETA-GLUCAN SYNTHETASE-ACTIVITY BY AUXIN IN PEA STEM TISSUE. 1. KINETIC ASPECTS. *PLANT PHYSIOLOGY*
  Ray, P. M.
  1973; 51 (4): 601-608

- ISOLATION OF BETA-GLUCAN SYNTHETASE PARTICLES FROM PLANT CELLS AND IDENTIFICATION WITH GOLGI MEMBRANES. *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Ray, P. M., Shininge, T. L., Ray, M. M.
  1969; 64 (2): 605-?