

## CURRICULUM VITAE

PERSONAL

A. Name: Prakash Sharatchandra Masurekar  
 B. Home Address: 35 Christy Drive  
 Warren NJ 07059  
 C. Telephone Number (732) 560-1534  
 D. E-mail prakash\_masurekar@verizon.net

EDUCATION

<u>School</u>	<u>Date</u>	<u>Major/Minor Courses</u>	<u>Degree</u>
Massachusetts Institute of Technology, Cambridge MA	6/69-1/73	Biochemical Engineering Thesis: Control Mechanisms in Penicillin Biosynthesis Advisor: Prof. A. L. Demain	Ph. D
	9/66-6/68	Biochemical Engineering Thesis: Metabolic Excretion in Continuous Culture Advisor: Prof. R. I. Mateles	S. M.
University of Bombay India	6/64-6/66	Food Technology	M. Sc.
	6/62-6/64	Food Technology	B. Sc.
	6/58-6/62	Chemistry	B. Sc.

MERCK/MRL EMPLOYMENT HISTORY

<u>Title</u>	<u>From - To</u>
<b>Director, Natural Products Microbiology</b>	6/01-12/05
<b>Director, Microbial Process Research</b>	2/99-5/01
<b>Assoc. Director, Microbial Process Research</b>	1/82-1/99
<b>Senior Research Fellow</b>	8/81-12/81

## Non-Merck Employment History

**Senior Bio-Engineer** 9/80-8/81  
 W. R. Grace and Company, Columbia MD  
 Responsibilities included: Strain development, research and development of fermentation processes to produce amino acids and enzymes, design and construction of a fermentation pilot plant.

**Senior Research Chemist** 3/73-9/80  
 Eastman Kodak and Company, Rochester NY  
 Responsibilities included: research and development of fermentation processes to produce enzymes, their production for in-house use and design, construction and operation of a fermentation and enzyme isolation pilot plant.

## SOCIETY MEMBERSHIPS

American Society of Microbiology  
Society for Industrial Microbiology

## ACADEMIC AND PROFESSIONAL HONORS

Member of Editorial Board of Applied and Environmental Microbiology, 1980-1986.  
Guest Reviewer for Applied Microbiology and Biotechnology, Biotechnology and Applied Biochemistry and Biotechnology

## Publications

Masurekar, P. S. (2005). Strain Improvement for the Production of Fungal Secondary Metabolites. In "Handbook of Industrial Mycology". pp. 539-561.

Junker, B. H., M. Hesse, B. Burgess, P. Masurekar, N. Connors and A. Seeley. (2004). Early Phase Process Scale-up Challenges for Fungal and Filamentous Bacterial Cultures. Applied Biochemistry and Biotechnology **119**, 241-277.

Gerald F. Bills, Gonzalo Platas, Fernando Pelaez and Prakash Masurekar. (1999). Reclassification of a Pneumocandin-producing Anamorph, *Glarea lozoyensis* gen. et. sp. nov. Previously Identified as *Zalerion arboricola*. Mycological Research **103**, 179-192.

Wallace, M. A., Dean D. C., Ellsworth, R. L., Melillo, D. G. and Masurekar P. S. (1994). Studies on the Biosynthesis of Avermectins using Carbon Labeled 2-Methyl Butyric Acids. In "Synthesis and Application of Isotopically Labeled Compounds" pp. 605-612.

Morris, S. A., Schwartz, R. E., Sessin, D. F., Masurekar, P. S., Hallada, T. C., Schmatz, D. M., Bartizal, K., Hensens, O. D. and Zink, D. L. (1994). Pneumocandin D<sub>0</sub>, a New Antifungal Agent and Potent Inhibitor of *Pneumocystis carinii*. J. Antibiotics **47**, 755-764.

Masurekar, P. S., White, R. F. and Schwartz, R. E. (1993). Discovery, Production Process Development and Isolation of Pneumocandin B in "Cutaneous Antifungal Agents" pp. 375-393.

Masurekar, P. S., Chartrain, M. M., Gbewonyo, K., Goegelman, R. T., Ondeyka, J. G., Sosa, M. S., Kaplan, L., Ostlind, D. A., Shoop, W. L. and Diaz-Matas, M. T. (1993). Paraherquamide - a Novel Antiparasitic Agent: Production and Activity. In "Development in Industrial Microbiology Series: Microbial Metabolites" Vol. 32 169-184.

Masurekar, P. S., Fountoulakis, J. M., Hallada, T. C., Sosa, M. S. and Kaplan, L. (1992). Pneumocandins from *Zalerion arboricola* II. Modification of Product Spectrum by Mutation and Medium Manipulation. J. Antibiotics **45**, 1867-1874.

Masurekar, P. S. (1992). Therapeutic Metabolites. In "Fungal Biotechnology" pp. 241-302.

Buckland, B., Gbewonyo, K., Hallada, T., Kaplan, L. and Masurekar, P. S. (1989). Production of Lovastatin, an Inhibitor of Cholesterol Accumulation in Humans. In "Topics in Industrial Microbiology: Novel Microbial Products for Medicine and Agriculture" Vol. 1 pp. 161-169.

Monaghan, R. L., Arcuri, E., Baker, E., Buckland, B., Greasham, R. L., Houck, D. R., Ihnen, E. D., Inamine, E. S., King, J. J., Lesniak, E. Masurekar, P. S., Schulman, C. A., Singelton, B. and Goetz, M. (1989). History of Yield Improvement in the Production of Asperlicin by *Aspergillus alliaceus*. J. Industrial Microbiology **4**, 97-104.

- Masurekar, P. S. (1988). Microbial Production of Avermectin. In "Impact of Chemistry on Biotechnology" ACS Symposium Series 362. pp. 242-255.
- Masurekar, P. S. and Demain A. L. (1974). Impaired Penicillin Production in Lysine Regulatory Mutants of *Penicillium chrysogenum*. Antimicrobial Agents and Chemotherapy 6, 366-368.
- Masurekar, P. S. and Demain A. L. (1974). Insensitivity of Homocitrate Synthase in Extracts of *Penicillium chrysogenum* to Feedback Inhibition by Lysine. Applied and Environmental Microbiology 28, 265-270.
- Demain, A. L. and Masurekar, P. S. (1974). Lysine Inhibition of in vivo Homocitrate Synthesis in *Penicillium chrysogenum*. J. General Microbiology 82, 143-151.
- Masurekar, P. S., Kahagen, M. P. and Demain, A. L. (1972). Mutagenesis and Enrichment of Auxotrophs in *Penicillium chrysogenum*. Applied Microbiology 24, 995-996.
- Masurekar, P. S. and Demain A. L. (1972). Lysine Control of Penicillin Biosynthesis. Canadian J. Microbiology 18, 1045-1048.

### PRESENTATIONS

- Masurekar, P. S. (2005). Joy of Fermentation Research. In "Fifth International Symposium on Industrial Microbiology and Biotechnology" pp. 73.
- Zhang, J., Reddy, J., Masurekar, P., Byrne, K., Salmon, P., Junker, B. and Greasham, R. (2001). Development of a Challenging Fungal Fermentation Process using Chemically defined Medium. In "Recent Advances in Fermentation Technology".
- Goodhue, C. T. and Masurekar, P. S. (1981). Creatinine Iminohydrolase Production by *Flavobacterium filamentosum*. Bact. Proc. pp. 195.
- Masurekar, P. S. and Goodhue, C. T. (1980). Optimization of Production of L- $\alpha$ -Glycerophosphate Oxidase. Bact. Proc. pp. 185.
- Masurekar, P. S. and Esmerian, O. K. (1979). Optimization of Production of Cholesterol oxidase. Bact. Proc. 198.
- Masurekar, P. S., Esders, T. W., Michrina, C. A. and Goodhue, C. T. (1978). Production and Characterization of L- $\alpha$ -Glycerophosphate Oxidase. In "Xth International Congress of Clinical Chemistry".
- Masurekar, P. S., Fragale, B. J. and Goodhue, C. T. (1977). Directed Alterations in the Cellular Location of Cholesterol Oxidase. Bact. Proc. pp. 251.

### PATENTS

- Kelly, R., Register, E. and Masurekar, P. (1998). P5C reductase gene from *Zalerion arboricola*. U. S. Patent No. 5,789,222.
- Masurekar, P. S., Wallace, M. A., Shoop, W. L. and Monaghan, R. L. (1995). Active avermectin analogue. U. S. Patent No. 5,578, 581.
- Fountoulakis, J. M., Masurekar, P. S. and Kaplan, L. (1995). Antibiotic agent. U. S. Patent No. 5,426,038.
- Schwartz, R. E., Masurekar, P. S. Sessin, D. F., Liesch, J. M., Hallada, T. C. and Hensens, O. D. (1994). Antibiotic agent. U. S. Patent No. 5,366,880.

- Schwartz, R. E., Sessin, D. F., Masurekar, P. S., Liesch, J. M., Hallada, T. C. and Hensens, O. D. (1994). Antibiotic agent. U. S. Patent No. 5,306,708.
- Dufresne, C., Masurekar, P. S., Ferrell, L.A., Zink, D. L. and Sosa, M. S. (1994). Cholesterol lowering compounds. U. S. Patent No. 5,310,949.
- Schwartz, R. E., Masurekar, P. S., Hallada, T. C., Hensens, O. D. and Liesch, J. M. (1993). Antibiotic Agent. U. S. Patent No.
- Sessin, D. F., Fountoulakis, J. M., Masurekar, P. S. and Kaplan, L. (1992). Process for production of cyclic lipopeptide employing *Zalerion arboricola*. U. S. Patent No. 5,162,211.
- Fountoulakis, J. M. and Masurekar, P. S. (1992). Process for producing an antibiotic compound using *Zalerion arboricola*. U. S. Patent No. 5,137,813
- Sessin, D. F., Liesch, J. M., Fountoulakis, J. M., Masurekar, P. S., Kaplan, L. and Wichman, C. F. (1991). Antibiotic agents. U. S. Patent No. 5,049,546.
- Sessin, D. F., Liesch, J. M., Fountoulakis, J. M., Masurekar, P. S., Kaplan, L. and Wichman, C. F. (1991). Antibiotic agents. U. S. Patent No. 5,021,403.
- Sosa, M. S., Masurekar, P. S. and Kaplan, L. (1991). Process for production of antibiotics. U. S. Patent No.
- Masurekar, P. S. (1981). Process and nutrient medium for growing microorganisms. (Process to produce creatinine iminohydrolase) U. S. Patent No. 4,275,164.
- Masurekar, P. S. and Goodhue, C. T. (1979). Process for production of L- $\alpha$ -Glycerophosphate Oxidase. U. S. Patent No. 4,166,005.
- Masurekar, P. S. and Goodhue, C. T. (1978). Method for producing cholesterol oxidase in the presence of nonionic surfactant. U. S. Patent No. 4,093, 571.
- Masurekar, P. S. and Goodhue, C. T. (1978). Method for the preparation of cholesterol oxidase. U. S. Patent No. 4,072,568.
- Masurekar, P. S. and Goodhue, C. T. (1977). Production of cholesterol esterase using *Nocardia cholesterolicum*. U. S. Patent No. 4,052,263.
- Masurekar, P. S. and Goodhue, C. T. (1977). Method for the preparation of cholesterol oxidase. U. S. Patent No. 4,035,237.