

PUBLICATIONS

Parminder Chahal

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REFEREED PUBLICATIONS

1. Shao, W., Paul, A., Abbasi, S., Chahal, P.S., Mena, J.A., Montes, J., Kamen, A. and Prakash, S. (2012) A novel polyethyleneimine-coated adeno-associated virus-like particle formulation for efficient siRNA delivery in breast cancer therapy: preparation and in vitro analysis. *Int J Nanomedicine*. 2012; 7: 1575–1586.
2. Dormond, E., Chahal, P., Bernier, A., Tran, R., Perrier, M. and Kamen, A. (2010) An Efficient Process for the Purification of Helper-Dependent Adenoviral Vector and Removal of Helper Virus by Iodixanol Ultracentrifugation. *Journal of Virological Methods*. Vol. 165, No. 1, pp 83-89.
3. Mena J.A., Aucoin, M.G., Montes J., Chahal P.S., Kamen A. (2010) Improving Adeno-Associated Vector yield in high density insect cell cultures. *Journal of Gene Medicine*. Vol.12.
4. Chahal, P.S and Kamen, A. (2009) Challenges In Producing Viral Vectors For Gene Therapy or Vector Vaccine. 8th World Congress of Chemical Engineering. August 23-28. Montreal, Quebec, Canada.
5. Durocher, Y., Pham, P.L., St-Laurent, G., Jacob, D., Cass, B., Chahal, P., Lau, C.J., Nalbantoglu, J. and Kamen, A. (2007) Scalable serum-free production of recombinant adeno-associated virus type 2 by transfection of 293 suspension cells. *J Virol Methods*. 144, Issues 1-2, September. **According to Science Direct Top 25 Hottest Articles (Jan – Mar 2008) in Journal of Virological Methods, this Article was Number 24th <http://top25.sciencedirect.com/subject/medicine-and-dentistry/17/journal/journal-of-virological-methods/01660934/archive/15/> and according to Science Direct Top 25 Hottest Articles (Oct-Dec 2007) in Journal of Virological Methods, this Article was Number 24th <http://top25.sciencedirect.com/subject/medicine-and-dentistry/17/journal/journal-of-virological-methods/01660934/archive/14/>.**
6. Chahal, P.S., Aucoin, M.G. and Kamen, A. (2007) Primary recovery and chromatographic purification of adeno-associated virus type 2 produced by baculovirus/insect cell system. *J Virol Methods* 139(1), 61-70. **According to Science Direct Top 25 Hottest Articles (Oct-Dec 2006) in Journal of Virological Methods, this Article was Number 17th <http://top25.sciencedirect.com/subject/medicine-and-dentistry/17/journal/journal-of-virological-methods/01660934/archive/10/>.**
7. Chahal, P.S., Transfiguracion, J., Bernier, A., Voyer, R., Coffey, M. and Kamen, A. (2007) Validation of a High-Performance Liquid Chromatographic Assay for the Quantification of Reovirus Particles type 3. *Journal of pharmaceutical biomedical analysis* 45, Issue 3.
8. Marc G Aucoin, Danielle Jacob, Parminder Singh Chahal, Jamal Meghrous, Alice Bernier, Amine A Kamen (2007) Virus-like Particle and Viral Vector Production Using the Baculovirus Expression Vector System/Insect Cell System: Adeno-Associated Virus-Based Products. *Methods Mol Biol*. 388: 281-96
9. Meghrous, J., M. G. Aucoin, et al. (2005). "Production of recombinant adeno-associated viral vectors using a baculovirus/insect cell suspension culture system: from shake flasks to a 20-L bioreactor." *Biotechnol Prog* Vol. 21, No. 1: 154-60. **Number 6 in the most-cited papers in 2005 from Biotechnology Progress.**
10. Frederique, F., Aomari, H., Chahal, P.S. and Legros, R. (2003) Modeling of scale down effects on the hydrodynamics of expanded bed adsorption columns. *Biotechnology & Bioengineering*. Vol. 81, No. 7, pp 790-799.
11. Transfiguracion, J., Bernier, A., Arcand, N., Chahal, P.S. and Kamen, A. (2001) Validation of a high-performance liquid chromatographic assay for the quantification of adenovirus type 5 particles. *Journal of Chromatography B: Biomedical Sciences and Applications*. Vol. 761 pp 187-197.
12. Toure, O., Chahal, P. S., Ishaque, M. and Chahal, D. S. (1997) Biodegradation of Phenol with two basidiomycetous white-rot fungi. *Global Environmental Biotechnology*. (Ed. D.L. Wise) Elsevier Science, pp 649-664.
13. Chahal, P.S., Chahal, D.S. and Le, G.B.B. (1996) Production of Cellulase in Solid-State Fermentation with *Trichoderma reesei* MCG80 on Wheat Straw. *Applied Biochemistry and Biotechnology*. Vol.57/58, pp 433-442.
14. Chahal, P.S., Chahal, D.S. and André, G. (1992) Cellulase Production Profile of *Trichoderma reesei* on Different Cellulosic Substrates at various pH levels. *Journal of Fermentation and Bioengineering*. Vol.74, No.2, pp 126-128.

15. Margaritis, A. and Chahal, P. S. (1989) Development of a Fructose Based Medium for Biosynthesis of Cyclosporin-A by *Beauveria nivea*. Biotechnology Letters. November, pp 765-768.
16. Chahal, D.S., Chahal, P.S., André, G., Ishaque, M. (1987) Cellulase Production on Lignocellulose. Sixth Canadian Bioenergy R & D Seminar. Ed. Cécille Granger. Elsevier Applied Science, New York. pp 306-310.
17. Chahal, D.S., Ishaque, M., Chahal, P.S., Lemay, J., I, o, S.N. and Valade, J.L. (1985) Chemithermomechanical Pulp as a Substrate for Cellulase Production. Biotechnology and Bioengineering Symp. No. 15. pp 387-397.
18. Chahal, D.S., Ishaque, M., Chahal, P.S. and Lemay, J. (1984) Process Development for Enzymatic Hydrolysis of Cellulose. Fifth Canadian Bioenergy Research and Development Seminar Ed. S. Hosnain. Elsevier Applied Science, London. pp 583-587.

CONFERENCE PRESENTATIONS

19. Chahal, P.S., Schulze, E., Tran, R., Grieger, J., Samulski, J., and Kamen, A. (2009) Manufacturing of Adeno-Associated Viruses of Different Serotypes for Gene Therapy Applications. American Society of Gene Therapy. San Diego, California, USA. May 27-30.
20. Chahal, P.S and Kamen, A. (2009) Challenges in Producing Viral Vectors for Gene Therapy or Vector Vaccine. 8th World Congress of Chemical Engineering. 23-28 August. Montreal
21. Edwige Dormond, Alice Bernier, Danielle Jacob, Parminder Chahal, Michel Perrier and Amine Kamen (2008) Comparison of parental and recombinant HEK293 cell lines in a helper-dependent adenoviral vector production and purification strategy. Cell Culture Engineering XI, Australia
22. Jimmy A. Mena, Marc G. Aucoin, Parminder S. Chahal and Amine A. Kamen (2008) Improvement of adeno-associated vector titers in high density insect cell cultures by combined feeding and asynchronous infection. 4th Canadian Symposium of gene therapy and vaccines
23. Jimmy A. Mena, Marc G. Aucoin, Parminder S. Chahal and Amine A. Kamen (2008) Combining asynchronous and synchronous infections in a multi-baculovirus system to improve the production of adeno-associated virus vectors. Cell Culture Engineering XI, Australia
24. Chahal P.S., Kamen A.A (2006) Primary recovery and purification of adeno-associated virus produced by Baculovirus/insect cell system. 56th Canadian Chemical Engineering Conference, October 15-18, Sherbrooke, Quebec, Canada
25. Meghrou J., Jacob D., Chahal P.S., Aucoin M.G., Arcand N. and Kamen A.A. (2004) Bioreactor production of recombinant adeno-associated viral vectors using a baculovirus/insect cell suspension culture system. IX Cell Culture Engineering Conference. March 7-11, Cancun, Mexico.
26. Kamen A.A., Meghrou J., Jacob D., Chahal P.S., Arcand N., Aucoin M.G., (2004) Production of adeno-associated virus vectors by baculovirus/insect cells system in suspension culture. Cell Culture Engineering IX Conference. March 7-12, 2004. Cancun, Mexico
27. Meghrou J., Jacob D., Chahal P., Arcand N., Aucoin M.G. and Kamen A. (2003) Production of adeno-associated virus by baculovirus/insect cells system in suspension cultures. 6th colloquium of the Association de thérapie génique du Québec. October 24, 2003. Montréal, Canada
28. Meghrou J., Jacob D., Chahal P., Arcand N., Aucoin M.G. and Kamen A. (2003) Production of adeno-associated virus by baculovirus/ insect cells system in suspension cultures. 6th Conference on Protein Expression in Animal Cells. September 7-11, 2003. Mont-Tremblant, Canada
29. Meghrou J., Jacob D., Chahal P., Aucoin M.G., Arcand N. and Kamen A. (2003) Scale-up and Mass Production of Adeno-Associated Vectors Using Insect Cell Expression System. 6th colloquium of the Association de thérapie génique du Québec. October 24, Montréal, Canada
30. Frederique, F., Aomari, H., Legros, R., Chahal, P.S. and Kamen, A. (2002) Scale down effects on the hydrodynamics of expanded bed adsorption columns. The Fourth International Conference on Expanded Bed Adsorption (EBA'02) St. Petersburg, Florida, USA. September 8-11.
31. Frederique, F., Aomari, H., Chahal, P.S., Legros, R., and Kamen, A. (2001) Scale down effects on the hydrodynamics of expanded bed adsorption columns. 51st Canadian Chemical Engineering Conference, October 14-17.
32. Legros, R. Viens, N., Aomari, H., Perrier, M., and Chahal, P.S. (2000) Expanded Bed Hydrodynamics: The effects of scaling down. The Third International Conference on Expanded Bed Adsorption. Garmisch-Partenkirchen, Germany, May 14-17.

33. St-Arnaud, S., Grothe S., D'Anjou, F., Banville, M., Chahal, P.S., Kamen, A. and O'Connor, M. (2001) One-step purification/refolding of TGF β -RII using IMAC. 20th Symposium on the Separation and Analysis of Proteins, Peptides and Polynucleotides, Slovenia, November.
34. Bernier, A., Arcand, N., Transfiguracion, J., Jacob, D., Chahal, P.S., and Kamen, A. (2000) Large-Scale Purification of Adenovirus 5 – A Work in Progress. The Williamsburg Bioprocessing Conference, Lake Tahoe, Nevada, November.
35. Chahal, P. S., Voyer, R., Levadoux, W., Aomari, H. and Kamen, A. (1998) Biosafety Level 2 (BL-2) Pilot-plant facility for the production of viral particles and recombinant proteins using mammalian cells. Facilities for Mammalian Cell Products: From Design Through Validation. 1st Annual Meeting. The Williamsburg BioProcessing Foundation. Montreal, Quebec, Canada. June 22-25.
36. Chahal, P.S., Beland, M., Tessier, D.C. and Kamen, A. (1997) High level expression of lipase in *Pichia pastoris* using methanol probe to maintain methanol concentration in high cell density bioreactor. Current Topics in Gene Expression Systems, San Diego, California, USA. November 2-5.
37. Chahal, D.S., Chahal, P.S., Awafo, V., Simpson, B.K. and Le, G.B.B. (1995) A New Bioreactor for the Production of Cellulases by Solid-State Fermentation with *Trichoderma reesei*. 1995 Recent Advances in Fermentation Technology Conference, San Diego, California, USA. November 4-7.
38. Chahal, P. S., Awafo, V. and Chahal, D. S. (1995) Development of a Pan-Bioreactor for the Production of Cellulase in Solid-State Fermentation. Canadian Society of Microbiologists. Annual Meeting, Kingston, Ontario, Canada, June.
39. Chahal, P.S. and Chahal, D.S. (1995) Production of Cellulase in Solid-State Bioreactor from *Trichoderma reesei* on Wheat Straw. Seventeenth Symposium on Biotechnology for Fuels and Chemicals. Vail, Colorado, USA. May 7-11.
40. Chahal, P.S. and Chahal, D.S. (1994) Designing of Fermentation Medium to Increase the Yield of Cellulase with High β -Glucosidase. 94th General Meeting of the American Society for Microbiology. Las Vegas, Nevada, USA. May 23-27.
41. Chahal, P.S. and Margaritis, A. (1994) Fluorosensor Controlled Fed-Batch Production of Cyclosporin-A from *Beauveria nivea*. 34th Annual Conference of Association of Microbiologists of India, Ludhiana, Punjab, India. February 9-11.
42. Guama, M.M., Farm, C.H., Chahal, P.S., Busby, S.J., Kilbum, D.G. and Piret, J.M. (1993) Influence of Cell Culture Conditions on Post-translational Modification of Recombinant Activated Protein C. AFPC Pharmaceutical Biotechnology Conference, Vancouver, B.C., Canada. July 31 - August 4.
43. Piret, J.M., Chahal, P.S., Lee, D.W., Sonderhoff, S., Haddow, D.J. and Kilbum, D.G. (1992) High Cell Density Mammalian Cell Culture in Porous Microcarriers. 42nd Canadian Chemical Engineering Conference, Toronto, Ontario, Canada. Oct. 18-21.
44. Lee, D.W., Chahal, P.S., Gregoi-y, D., Haddow, D.J., Piret, J.M. and Kilbum, D.G. (1992) High Cell Density Porous Polystyrene Microcarrier Culture. ACS Meeting, 203rd American Chemical Society National Meeting, San Francisco, U.S.A. April 5-10.
45. Chahal, P. S. and Margaritis, A. (1991) The Use of NADH Fluorescence to Control the Fed-Batch Production of Cyclosporin-A by *Beauveria nivea*. 41st Canadian Chemical Engineering Conference, Vancouver, B.C., Canada. Oct. 6-9.
46. Chahal, P. S. and Margaritis, A. (1990) Fed-Batch Biosynthesis of Cyclosporin-A with an Aid of Fluorescence Signal. 1990 Annual American Institute of Chemical Engineers Meeting. Chicago, Illinois, U.S.A. Nov. 11-16.
47. Margaritis, A. and Chahal, P. S. (1989) Cyclosporin-A Biosynthesis by *Beauveria nivea*. 198th American Chemical Society National Meeting. Miami Beach, Florida, U. S.A. Sept 10-15.
48. Chahal, P.S., Chahal, D.S. and André, G. (1989) Cellulase Production Profile on Different Cellulosic Substrates. Canadian Society of Microbiologists. Annual Meeting, Laval, PQ, Canada, June.
49. Chahal, D.S., Chahal, P.S. and Bossous, C. (1989) Effect of NAOH Concentration and Water Contents on the Pre-treatment of Lignocelluloses for Fungal Protein Production. In: Cellucon'89 Conference Proceedings. Deeside, Wales, U.K. Sept. 4-8.
50. Chahal, D.S., Chahal, P.S., Andr6, G., Ishaque, M. (1987) Cellulase Production on Lignocellulose. Sixth Canadian Bioenergy R & D Seminar. Richmond, BC, Canada. Feb. 16-18.
51. Chahal, P.S., Chahal, D.S. and André, G. (1986) Cellulase Production from Lignocellulosic Materials by Various *Trichoderma reesei* Mutants. Canadian Society of Microbiologists. Annual Meeting, Toronto, Canada, June.

52. Chahal, D. S., Ishaque, M., Chahal, P. S. and Lussier, M. (1986) Effect of NAOH Concentration and Water Content on the pre-treatment of lignocelluloses for Fungal Protein Production. Canadian Society of Microbiologists. Annual Meeting, Toronto, Ontario, Canada, June.
53. Chahal, P.S., Chahal, D.S. and André, G. (1986) Cellulase Production from Lignocellulosic Material by *Trichoderma reesei*. ACFAS 54e Congres, Annales de l'ACFAS, Montreal, PQ. Canada.
54. Chahal, D. S., Ishaque, M., Chahal, P. S. and Lemay, J. (1984) Process Development for Enzymatic Hydrolysis of Cellulose. Presented at the Fifth Canadian Bioenergy R. & D. Seminar, Ottawa, Ontario, Canada. March 26-28.

BOOKS

55. Chahal P., Durocher, Y., and Kamen, A. (2010) Cell Transfection. A Chapter in Comprehensive Biotechnology Encyclopedia. (Ed. M. Moo-Young)
56. Aucoin M.G., Jacob D., Chahal P.S., Meghrouh J., Bernier A., Kamen A.A., Virus-like Particle and Viral Vector Production Using the BEV/insect Cell System: Adeno-associated Virus Based Products, *Baculovirus Expression Protocols*, Totowa, New Jersey, Humana Press Inc., Submitted, 2005.
57. Chahal, P.S., and Chahal, D.S. (1997) Lignocellulosic Wastes: Biological Conversion. In: Bioconversion of Waste Materials to Industrial Products, 2nd Edition. Ed. A.M. Martin, Chapman & Hall, London, UK. Chapter 9, pp 376-422.
58. Chahal, D.S., Chahal, P.S. and André, G. (1991) Cellulase Production and Hydrolysis of Lignocelluloses. In: Food, Feed and Fuel from Biomass. Ed. D. S. Chahal, Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi. pp 281-312.
59. Chahal, D.S., Chahal, P.S. and Bossous, C. (1989) Effect of NAOH Concentration and Water Contents on the Pre-treatment of Lignocelluloses for Fungal Protein Production. In: "Cellulose: Sources and Exploitation" Eds. G.O. Phillips, J.F. Kennedy and P.A. Williams. Ellis Horwood Ltd., England.

PATENT APPLICATION

60. Margaritis, A. and Chahal, P.S. (1995) Fluorosensor Controlled Fed-Batch Production of Cyclosporine. Application for Canadian Patent, Patent Office, Consumer and Corporate Affairs Canada, Ottawa, Canada, No. 2,102,132.

OTHER PUBLICATIONS

61. Chahal, P. S. (1992) Fluorosensor Controlled Fed-Batch Production of Cyclosporin-A from *Beauveria nivea*. PhD Thesis. The University of Western Ontario, London, Ontario, Canada.
62. Chahal, P.S. (1987) Cellulase Production from Lignocellulosic Materials by *Trichoderma reesei*. MASc Thesis. University of Ottawa, Ottawa, Ontario, Canada.

REPORTS WHILE NOT AT NRC

63. Chahal, P.S. and Chahal, D.S. (1995) Economic Analysis of Cellulase Production by Liquid-State and Solid-State Fermentation Processes. Prepared for Ministry of Natural Resources, Government of Québec, Canada.
64. Chahal, P.S. (1988) Preliminary Economic Feasibility Study of Bioprocess for Single-Cell-Protein (SCP) Production from Lignocelluloses. Prepared for Institut Armand-Frappier, University of Québec, Laval, Québec, Canada.

REPORTS WHILE AT NRC

More than 20 client reports have been written for over 25 client contracts in the past 15 years.