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Moein Moghimi is Professor of Nanomedicine and Head of the Nanomedicine Group at the Department of Pharmaceutics and Analytical Chemistry (Faculty of Phramaceutical Sciences, University of Copenhagen, Denmark). He further serves as the Director of the Centre for Pharmaceutical Nanotechnology and Nanotoxiocology (CPNN) and Group Leader in Pharmaceutical Nanotechnology at the NanoScience Center (University of Copenhagen). He is also the Guest Professor of Nanomedicine at Multidisciplinary Research Center, Shantou University (China), Honorary Professor of Nanomedicine both at the School of Advanced Biomedical Sciences, and Research Centre for Pharmaceutical Nanotechnology based at Tabriz University of Medical Sciences (Iran), and the elected Fellow of the Institute of Nanotechnology (FIoN) in UK. Previously he was Senior Lecturer in Biopharmacy and Molecular Pharmaceutics at the School of Pharmacy, University of Brighton (UK), and The University Research Fellow in Advanced Drug Delivery Systems at the Department of Pharmaceutical Sciences, University of Nottingham (UK). His research activities are focused on experimental nanomedicines and pharmaceutical nanotechnology. He has pioneered research in design and surface engineering of nanoparticles and functional nanosystems for parenteral site-specific targeting and imaging modalities (e.g., splenotropic entities, lymphotropic agents, 'phagocyte-resistant' nanoparticles and cancer nanomedicines) as well as the molecular basis of nanomaterial cytotoxicity (single cell studies) and adverse immunological reactions (complement activation mechanisms). Professor Moghimi has been the recipient of numerous awards and was most recently was honoured with the Faculty of Pharmaceutical Sciences Research Achievement Award (Copenhagen University). His contributions to peer-reviewed high impact international journals include over 90 original full research papers and invited critical reviews (with over 3000 citations, *h*-index of 28, and *m*-index of 1.24 as of Jan 2010) and more than 40 book chapters, business reports, editorials, and patents. Since 2009, Professor Moghimi has secured over 50 million DKK (7 million €) in competitive research funds in nanomedicine and bionanotechnology and act as principal investigator of numerous nanomedicine research projects and partnering EC FP-7 programmes.

Professor Moghimi has previously served as invited Theme Editor for three *Theme Issues* of the prestigious ***Advanced Drug Delivery Reviews*** **(Elsevier)** and an issue of each of ***Current Drug Delivery (Bentham)*** and ***Journal of Biomedical Nanotechnology (American Scientific Publishers)***. He is currently the European Editor of the ***NanoMed Journal (Pan Stanford)***, Associate Editor of the ***Journal of Biomedical Nanotechnology*** and member of the editorial/advisory board of the ***Journal of Liposome Research (Informa Healthcare), Drug Delivery (Informa Healthcare), Nanomedicine-UK (Future Medicine)***, ***Journal of Drug Delivery (Hindawi), Current Patents in Drug Delivery and Formulation (Bentham)***, ***Current Drug Discovery Technologies (Bentham)***, ***International Journal of Clinical Research and Drug Development (Synconsys)***, and ***Multimedia Distributed Knowledge Network in Nanotechnology***. He further practices in the capacity of a consultant for numerous pharmaceutical, biotechnology, health, and food industries as well as investment banks, management consultancy firms and other entrepreneurial enterprises world-wide and was an invited evaluator for Nanotechnology/Nanomedicine Centres of Excellence in Germany and Austria. Other responsibilities include being a regular invited assessor and nanomedicine expert for the UK research councils (BBSRC and EPSRC), Wellcome Trust, British Council, Association for International Cancer Research (UK), European Science Foundation (France), French National research agency (ANR), Austrian Science Fund, Austrian NANO initiative, Deutsche Forschungsgemeinschaft, Swiss National Science Foundation, the Netherlands Organization for Health Research and Development, The Portuguese Foundation for Science and Technology, Hungarian Biotechnology Association, Qatar National Research Fund and many more. To

date, Professor Moghimi has been an appointed reviewer to over 800 manuscripts for more than 90 international journals and has delivered over 200 invited presentations and keynote lectures in more than 20 countries as well as being conference chair and organizer.

In 1985, he graduated with Honors in Biochemistry from The University of Manchester (UK) and in 1989 completed a PhD in Biochemistry (liposomes immunobiology) at the Charing Cross Hospital Medical School (Imperial College, University of London, UK). Professor Moghimi is listed in ***Marquis Who's Who in the World,*** USA, ***Marquis Who's Who in Science and Engineering,*** USA, and ***Marquis Who's Who in Medicine and Healthcare,*** USA (by invitation).

Selected Recent Representative Peer-Reviewed Publications (post-2000):

1. **Parhamifar, L., Larsen, A. K., A. C. Hunter, Andresen, T. and Moghimi, S. M.** ✉ (2010) Polycation cytotoxicity: a delicate matter for nucleic acid therapy — Focus on poly(ethylenimine). *Soft Matt. (Royal Soc. Chem.)* (in press) doi:10.1039/c000190b.

2. **Hunter, A. C.**✉ **and Moghimi, S. M.** (2010) Cationic carriers of genetic materials and cell death: a mitochondrial tale. *Biochim. Biophys. Acta-Bioenergetics* (in press) doi:10.1016/j.bbabio.2010.03.026.

3. **Moghimi, S. M.** ✉**, Andersen, A. J., Hashemi, S. H., Lettiero, B., Ahmadvand, D., Hunter, A. C., Andresen, T. L., Hamad, I. and Szebeni, J.** (2010) Complement activation cascade triggered by PEG-PL engineered nanomedicines and carbon nanotubes: the challenges ahead. *J. Control. Rel.* (in press) doi:10.1016/j.jconrel.2010.04.003.

4. **Moghimi, S. M.**✉ **and Hunter, A. C.** (2010) Complement monitoring of carbon nanotubes. *Nature Nanotechnology* (in press).

5. **Andersen, A. J., Hashemi, A. S., Galimberti, G., Re, F., Masserini, M. And Moghimi, S. M.**✉ (2010) The interaction of complement system with abeta-binding liposomes: towards engineering of safer vesicles for the management of Alzheimer's disease. *J. Biotechnology (Suppl.)* (in press).

6. **Moghimi, S. M.**✉ **and Andresen, T. L.** (2009) Complement-mediated tumour growth: implications for cancer nanotechnology and nanomedicine. *Mol. Immunol.* **46:** 1571–1572.

7. **Pillai, S., Hemmersam, A. G., Mukhopadhyay, R., Meyer, R. L., Moghimi, S. M., Besenbacher, F. and Kingshott, P.**✉ (2008) Tunable 3D and AD polystyrene nanoparticle assemblies using surface wettability, low volume fraction and surfactant effects. *Nanotechnology* 20: 025604 (doi: 10.1088/0957-4484/20/2/025604).

8. **Hamad, I., Hunter, A. C., Rutt, K. J., Liu, Z., Dai, H. and Moghimi, S. M.**✉ (2008) Complement activation by PEGylated single-walled carbon nanotubes is independent of C1q and alternative pathway turnover. *Mol. Immunol.* **45:** 3797–3803.

9. **Hamad, I., Hunter, A. C., Szebeni, J. and Moghimi, S. M.**✉ (2008) Poly(ethylene glycol)s generate complement activation products in human serum through increased alternative pathway turnover and a MASP-2-dependent process. *Mol. Immunol.* **46:** 225–232.

10. **Moghimi, S. M.**✉ **and Moghimi, M.** (2008) Enhanced lymph node retention of subcutaneously injected IgG-PEG-liposomes through pentameric IgM antibody-mediated vesicular aggregation. *Biochim. Biophys. Acta-Biomembranes* **1778:** 51–55.

11. **Moghimi, M. and Moghimi, S. M.**✉ (2008) Lymphatic targeting of immuno-PEG-liposomes: evaluation of antibody coupling procedures on lymph node macrophage uptake. *J. Drug Targeting* **16:** 586–590.

12. **Mukhopadhyay, R., Al-Hanbali, O., Pillai, S., Hemmersam, A. G., Meyer, R. L., Hunter, A. C., Rutt, K. J., Besenbacher, F., Moghimi, S. M. and Kingshott, P.**✉ (2007) Ordering of binary polymeric nanoparticles on hydrophobic surfaces assembled from low volume fraction dispersions. *J. Am. Chem. Soc.* **129:** 13390–13391.

13. **Moghimi, S. M.✉, Hamad, I. and Hunter, A. C.** (2007) Particulate nanomedicine in the foot-steps of platelet-homing. *Nanomedicine-UK* **2:** 381–384.

14. **Moghimi, S. M.✉, Hamad, I., Andresen, T. L., Jørgensen, K. and Szebeni, J.** (2006) Methylation of the phosphate oxygen moiety of phospholipid-mthoxypoly(ethylene glycol) conjugate prevents PEGylated liposome-mediated complement activation and anaphylatoxin production. *FASEB J.* **20:** 2591–2593 (doi: 10.1096/fj.06-6186fje, electronic pages E2057–E2067).

15. **Moghimi, S. M.✉** (2006) The effect of methoxyPEG chain length and molecular architecture on lymph node targeting of immuno-PEG-liposomes. *Biomaterials* **27:** 136–144.

16. **Moghimi, S. M.✉ and Kissel, T.** (2006) Particulate nanomedicines. *Adv. Drug Deliv. Rev.* **58:** 1451–1455.

17. **Al-Hanbali, O., Rutt, K. J., Sarker, D., Hunter, A. C. and Moghimi, S. M.✉** (2006) Concentration dependent structural ordering of poloxamine 908 on polystyrene nanoparticles and their modulatory role on complement consumption. *J. Nanosci. Nanotechnol.* **6:** 3126–3133.

18. **Moghimi, S. M.✉** (2006) Recent developments in polymeric nanoparticle engineering and their applications in experimental and clinical oncology. *Anti-cancer Agent. Med. Chem.* **6:** 553–561.

19. **Moghimi, S. M.✉, Symonds, P., Murray, J. C., Hunter, A. C., Debska, G. and Szewczyk, A.** (2005) A two-stage poly(ethylenimine)-mediated cytotoxicity: implications for gene-transfer/therapy. *Mol. Ther. (Am. Soc. Gene Ther.)* **11:** 990–995.

20. **Symonds, P., Murray, J. C., Hunter, A. C., Debska, G., Szewczyk, A. and Moghimi, S. M.✉** (2005) Low and high molecular weight poly(L-lysine)s/poly(L-lysine)-DNA complexes initiate mitochondrial-mediated apoptosis differently. *FEBS Lett.* **579:** 6191–6198.

21. **Moghimi, S. M.✉, Hunter, A. C. and Murray, J. C.** (2005) Nanomedicine: current status and future prospects. *FASEB J.* **19:** 311–330.

22. **Moghimi, S. M.✉, Hunter, A. C., Murray, J. C. and Szewczyk, A.** (2004) Cellular distribution of nonionic micelles. *Science* **303:** 626–627.

23. **Moghimi, S. M.✉ and Szebeni, J.** (2003) Stealth liposomes and nanoparticles: critical issues on protein-binding properties, activation of proteolytic blood cascades and intracellular fate. *Prog. Lipid Res.* **42:** 463–478.

24. **Moghimi, S. M.✉, Hunter, A. C., Dadswell, C. M., Savey, S., Alving, C. R., and Szebeni, J.** (2004) Causative factors behind poloxamer 188 (Pluronic F68, Flocor™)-induced complement activation in human sera. A protective role against poloxamer-mediated complement activation by elevated levels of lipoproteins. *Biochim. Biophys. Acta- (Mol. Basis Dis.)* **1689:** 103–113.

25. **Reynolds, A. R., Moghimi, S. M. and Hodivala-Dilke, K.✉** (2003) Nanoparticle-mediated gene delivery to tumour neovasculature. *Trend. Mol. Medicine* **9:** 2–4.

26. **Moghimi, S. M.✉** (2002) Chemical camouflage of nanospheres with a poorly reactive surface: towards development of stealth and target-specific nanocarriers. *Biochim. Biophys. Acta-Mol. Cell Res.* **1590:** 131–139.

27. **Gbadamosi, J. K., Hunter, A. C. and Moghimi, S. M.✉** (2002) PEGylation of microspheres generates a heterogeneous population of particles with differential surface characteristics and biological performance. *FEBS Lett.* **523:** 338–344.

28. **Hunter, A. C.✉ and Moghimi, S. M.** (2002) Therapeutic synthetic polymers: a game of Russian roulette? *Drug Discov. Today* **7:** 998–1001.

29. **Moghimi, S. M.✉, Hunter, A. C. and Murray, J.C.** (2001) Long circulating and target-specific nanoparticles: theory to practice. *Pharmacol. Rev.* **53:** 283–318.

30. **Moghimi, S. M.✉ and Hunter, A. C.** (2000) Poloxamers and poloxamines in nanoparticle engineering and experimental medicine. *Trend. Biotechnol*. **18:** 411–420.

Selected Recent Representative Book Chapters and Editorials (post-2005):

1. **Moghimi, S. M.** (2010) Particle nanoengineering for the lymphatic system and lymph node targeting. In: *Polymer-Based Nanostructures: Medical Applications. RCS Nanoscience and Nanotechnology Series,* (P. Broz, ed.). Vol. 9, Royal Society of Chemistry, London. pp. 81–97. [ISBN: 978-0-85404-956-1].

2. **Moghimi, S. M. and Hamad, I.** (2009) Hypersensitivity reactions to nanomedicines: Causative factors and optimization of design parameters. In: *Allergy Frontiers: from Epigenetics to Future Prespectives* (R. Pawankar, S. Holdgate, L. J. Rosenwaser, eds.). Vol. 6, Springer Japan KK, Tokyo. pp. 229–241. [ISBN: 978-4-431-99364-3].

3. **Moghimi, S. M.** (2009) The innate immune responses, adjuvants and delivery systems. In: *Delivery Technologies for Biopharmaceuticals: Peptides, Proteins, Nucleic Acids and Vaccines* (L. Jorgensen, H. M. Nielsen, eds.). Wiley & Sons, Chichester. pp. 113–127. [ISBN-13: 978-0-470-72338-8].

4. **Moghimi, S. M. and Hamad, I.** (2009) Factors controlling pharmacokinetics of intravenously injected nanoparticles. In: *Nanoparticles in Drug Delivery*. Series: *Biotechnology: Pharmaceutical Aspects,* Volume X (M. M. de Villiers, P. Aramwit, G. S. Kwon, eds.). Springer Science, New York. pp 267–282. [ISBN: 978-0-387-77667-5].

5. **Moghimi, S. M., Chirico, G. and Zaichenko, A.** (2009) EDITORIAL: Nano- and micro-technologies for biological targeting, tracking, imaging and sensing. *J. Biomed. Nanotechnol.* **5:** 611–613.

6. **Moghimi, S. M.** (2007) Nanotoxicology of synthetic gene-transfer vectors: poly(ethylenimine)- and polyfectin-mediated membrane damage and apoptosis in human cell lines. In: *Nanotechnologies for Life Sciences: Nanomaterials for Medical Diagnosis and Therapy* (C. S. S. R. Kumar, ed.). Volume 10, Wiley-VCH Verlag, Berlin. pp. 629–643. [ISBN 978-3-527-31390-7].

7. **Moghimi, S. M.** (2007) Passive targeting of solid tumors: pathophysiological principles and physicochemical aspects of delivery systems. In: *Nanotechnology for Cancer Therapy* (M. Amiji, ed.). CRC Press, Boca Raton, Florida. pp. 11–18. [ISBN-13: 978-0-8493-7194-3, ISBN-10: 0-8493- 7194-5]

8. **Moghimi, S. M.** (2007) Optimization strategies in lymph node targeting of interstitially injected immunoglobulin G-bearing liposomes. In: *Liposome Technology, 3rd Edition, Vol. III, Interaction of Liposomes with the Biological Milieu* (G. Gregoriadis, ed.). Informa Healthcare USA, Inc., New York. pp. 65–77. [ISBN-10: 0-8493-9725-1, ISBN-13: 978-0-8493-9275-7].

9. **Moghimi, S. M., Vega, E., Garcia, M. L., Al-Hanbali, O. A. R. and Rutt, K. J.** (2006) Polymeric nanoparticles as drug carriers and controlled release implant devices. In: *Nanoparticulates as Drug Carriers* (V. P. Torchilin, ed.). Imperial College Press, London. pp. 29–42. [ISBN 1-86094-630-5].

10. **Moghimi, S. M. and Agrawal, A.** (2005) Lipid-based nanosystems and complexes in experimental and clinical therapeutics. *Curr. Drug Deliv.* **2:** 296–296.