

USMD/TIPS Publications and Reference Materials:

1. TIPS Brochure (<http://www.research.philips.com/TIPS>)
2. Stand-Alone Inline Degasser (<http://www.research.philips.com/TIPS>), under 'Accessories'
3. B.I. Raju, C.S. Hall, M.S. Hughes, S.A. Wickline, and G.M. Lanza, "Ultrasound-Mediated Nanoparticle Drug Delivery in an *In-Vivo* Tumor Model," *J. Acoust. Soc. Am.*, Vol. 120, No. 5, Pt. 2, November 2006 (Fourth Joint Meeting: ASA and ASJ).
4. W.T. Shi, M. Boehmer, A. van Wamel, M. Celebi, A.L. Klibanov, C.T. Chin, C. Chlon, M. Emmer, K. Kooiman, N. de Jong, and C.S. Hall, "Ultrasound Therapy with Drug Loaded Microcapsules," *Proceedings of the 2007 IEEE Ultrasonics Symposium*, pp. 773-776.
5. E. Svoboda, "10 High-Tech Health Breakthroughs Coming Soon to Your Body – Targeted Delivery," *Popular Mechanics*, June 2008 Issue.
(http://www.popularmechanics.com/science/health_medicine/4262611.html?page=4)
6. R. Seip, "TIPS: Site Targeted Delivery with Focused Ultrasound," Controlled Release Society 2008 Soapbox Session, July 2008.
7. W.T. Shi, M. Böhmer, M. Celebi, A. van Wamel, C.T. Chin, C. Chlon, A.L. Klibanov, and C.S. Hall, "Ultrasound Activated Paclitaxel Delivery in Mice Using a Combined Therapy and Imaging Probe System," *Proceedings of the 2008 IEEE Ultrasonics Symposium*, pp. 337-340.
8. T.I. Shevchenko, C.T. Chin, and A.L. Klibanov, "Liquid perfluorocarbon droplets: ultrasound-activated enhancers of ultrasound imaging and therapy," MRgFUS 2008 International Symposium, October 2008.
9. C.T. Chin, T.I. Shevchenko, B. Verhaagen, and A.L. Klibanov, "Liposome-microbubble pendants allow ultrasound-triggered release of liposome contents," MRgFUS 2008 International Symposium, October 2008.
10. A. Ghanem, C. Steingen, F. Brenig, ZY. Bai, C. Hall, C.T. Chin, G. Nickenig, W. Bloch, and K. Tiemann, "Ultrasound-induced stimulation of microbubbles augments and targets myocardial engraftment of mesenchymal stem cells in vivo," presented at the American Heart Association Annual Meeting, November 2008, New Orleans.
11. W.T. Shi, M. Boehmer, M. Celebi, A. van Wamel, C.T. Chin, C. Chlon, A.L. Klibanov, and C.S. Hall, "Ultrasound Activated Drug Delivery with a Preclinical Therapy and Imaging System," *J. Ultrasound Med*, Vol. 28, No. 3, March 2009, pp. S119 (AIUM 2009).
12. K. Kooiman, M.R. Boehmer, M. Emmer, H.J. Vos, C. Chlon, W.T. Shi, C.S. Hall, S. de Winter, K. Schroeen, M. Versluis, N. de Jong, and A. van Wamel, "Oil-filled polymer microcapsules for ultrasound-mediated delivery of lipophilic drugs," *Journal of Controlled Release* 133 (2009), pp. 109-118.

13. C. Hall, C.T. Chin, K. Tiemann, and A. Ghanem, "Ultrasound enhanced stem cell delivery device and method," pending patent application submitted to THE UNITED STATES PATENT AND TRADEMARK OFFICE, September 2008.
14. Dan Harvey, "Tiny Bubbles," *Radiology Today*, Vol. 10, No. 1, p. 16, January 12, 2009. (http://www.radiologytoday.net/archive/rt_011209p16.shtml)
15. M.R. Böhmer, A.L. Klibanov, K. Tiemann, C.S. Hall, H. Gruell, and O.C. Steinbach, "Ultrasound triggered image-guided drug delivery," *Eur J Radiol* (2009), doi:10.1016/j.ejrad.2009.01.051 (in press).
16. R. Seip, C.T. Chin, C. Hall, B. Raju, A. Ghanem, and K. Tiemann, "Targeted Ultrasound Mediated Delivery of Nanoparticles: on the development of a new HIFU-based therapy and imaging device," *IEEE Transactions on Biomedical Engineering*, Vol. 57, No. 1, January 2010, pp. 61-70.
17. C.T. Chin, C. Hall, and A.L. Klibanov, "Tumor treatment using ultrasound cavitation," pending patent application submitted to THE UNITED STATES PATENT AND TRADEMARK OFFICE, April 2009.
18. A.L. Klibanov, T. Shevchenko, M. Celebi, C. Hall, and C. Chin, "Reduction of blood flow in the tumor vasculature after microbubble destruction by ultrasound," presented at the 2009 RSNA conference.
19. A. Klibanov, T. Shevchenko, B. Kundu, M. Bohmer, R. Seip, B. Raju, C. Chin, "Destruction of microbubbles in the tumor vasculature by image-guided focused ultrasound inhibits tumor growth," presented at the 2009 WMIC conference, Montreal, Canada.
20. "Microbubbles deal drugs," *Medical Design*, May 2009, pp. 36-37.
21. A. Ghanem, C. Steingen, F. Brenig, F. Funcke, Z.Y. Bai, C. Hall, C.T. Chin, G. Nickenig, W. Bloch, K.T. Tiemann, "Focused ultrasound-induced stimulation of microbubbles augments site-targeted engraftment of mesenchymal stem cells after acute myocardial infarction," *Journal of Molecular and Cellular Cardiology* (2009), doi:10.1016/j.yjmcc.2009.06.008.
22. Chien Ting Chin, Alexander Ghanem, Zhiyong Bai, Christopher S Hall, Mareike Mühlmeister, Klaus Tiemann, "Ultrasound mediated gene silencing with short-hairpin RNA," Proceedings of the *2009 IEEE Ultrasonics Symposium*, pp. 1784-1787.
23. Chien Ting Chin, Talent Shevchenko, Alexander Klibanov, "Arrest of tumor growth and reduction of tumor size in vivo by combination of intravascular microbubbles and ultrasound," Proceedings of the *2009 IEEE Ultrasonics Symposium*, pp. 77-80.
24. A.L. Klibanov, T. Shevchenko, B. Kundu, R. Seip, B.I. Raju, and C.T. Chin, "Ultrasound contrast media as a therapy for solid tumor: reduction of tumor size as the result of ultrasound treatment of microbubbles in the tumor vasculature," presented at the 2009 CMR, Copenhagen, Denmark.

25. R. Seip, "Ultrasound Mediated Drug Delivery Technologies for Localized Treatment," presented at the ICUS Bubble Conference, October 22-23, 2009, Chicago, USA.
26. R. Seip, C.T. Chin, B. Raju, and E. Leyvi, "Ultrasound Mediated Drug and Gene Delivery Technologies for Localized Treatment," presented at the Cold Spring Harbor In Vivo Barriers to Gene Delivery Meeting, November 16-19, 2009, Cold Spring Harbor, USA.
27. Marcel Böhmer, Ceciel Chlon, Balasundar I. Raju, Chien Ting Chin, Talent Shevchenko and Alexander Klibanov, "Acoustic Activation of Microbubbles for Enhanced Transport across the Endothelial Border," presented at the European Drug Delivery Symposium, April 2010.
28. A.L. Klibanov, T.I. Shevchenko, B. Raju, R. Seip, C.T. Chin, "Ultrasound-triggered release of materials entrapped in microbubble-liposome constructs: a tool for targeted drug delivery," presented at the European Drug Delivery Symposium, April 2010.
29. S. Wang, V. Frenkel, and V. Zderic, "Preliminary Optimization of Non-Destructive High Intensity Focused Ultrasound Exposures for Hyperthermia Applications," Proceedings of the 31st Annual International Conference of the IEEE EMBS, Minneapolis, Minnesota, September 2009, pp. 3055-3059.
30. A. Klibanov, T. Shevchenko, B.K. Kundu, Z. Du, M. Bohmer, R. Seip, B. Raju, and C. Chin, "Tumor Therapy by Microbubbles and Ultrasound: Mechanism of Tumor Growth Control," presented at the 16th European Symposium on Ultrasound Contrast Imaging, Rotterdam, The Netherlands, January 2010.
31. R. Seip, B.I. Raju, E. Leyvi, C.T. Chin, S. Li, C. Rouse, D. Koeberl, and W. Fodor, "Enhanced gene transfection of plasmid DNA in the liver with ultrasound and microbubbles," presented at the 2010 *IEEE Ultrasonics Symposium*.
32. A. Klibanov, T. Shevchenko, B. Raju, R. Seip, and C. Chin, "Ultrasound-triggered release of materials entrapped in microbubble-liposome constructs: A tool for targeted drug delivery," *J. Control. Release* (2010), doi:10.1016/j.jconrel.2010.07.115.
33. A. Klibanov, T. Shevchenko, Z. Du, R. Seip, B. Raju, and C. Chin, "Leukocyte Accumulation Caused by the Ultrasound-mediated Microbubble Destruction in the Tumor Vasculature: Monitoring by Ultrasound Contrast Molecular Imaging," presented at the 2010 RSNA conference (Chicago).
34. A. Klibanov, T. Shevchenko, Z. Du, B. Kundu, R. Seip, B. Raju, and C. Chin, "Induction of Leukocyte Accumulation by Image-Guided Ultrasound Therapy: Effect Monitoring by Ultrasound Molecular Imaging," presented at the 2010 WMIC (Japan).
35. M.R. Böhmer, C.H.T Chlon, B.I. Raju, C.T. Chin, T. Shevchenko, and A.L. Klibanov, "Focused ultrasound and microbubbles for enhanced extravasation," *J. Control. Release* (2010), doi: 10.1016/j.jconrel.2010.06.012.
36. A.L. Klibanov, T.I. Shevchenko, Z. Du, B. Kundu, B.I. Raju, R. Seip, and C.T. Chin, "Destruction of Circulating Microbubbles in the Vasculature Can Inhibit Tumor Growth:

Possible Mechanisms of the Observed Therapeutic Effect," presented at the 2010 FUSF MRgHIFU Symposium, October 17-20, Washington, DC.

37. A.L. Klibanov, T.I. Shevchenko, Z. Du, B. Kundu, B.I. Raju, R. Seip, and C.T. Chin, "Drugless tumor therapy by image-guided insonation of microbubbles in the tumor vasculature: possible mechanisms of action," presented at the National Center for Image Guided Therapy 3rd Annual Image-Guided Therapy Workshop, March 8-9 2010, Arlington, Virginia.
38. R. Seip, M. Bohmer, H. Gruell, O. Steinbach, and S. Vulto, "Image Guided Ultrasound Mediated Drug Delivery: Sonodrugs Update," presented at the ICUS Bubble Conference, September 29 - October 1, 2010, Chicago, USA.

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