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Selected Publications

1. Bochenek, M., A., Veiseh, O., Vegas, A. J., McGarrigle, J. J., Qi, M., Marchese, E., Omami, M., Doloff, J. C., Mendoza-Elias, J., Nourmohammadzadeh, M., Khan, A., Yeh, C. C., Xing, UY., Isa, D., Ghani, S., Li, J., Landry, C., Bader, A. R., Olejnik, K., Chen, M., Hollister-Lock, J., Wang, Y., Griener, D. L., Weir, G. C., Strand, B. L., Rokstad, A. M. A., Lacik, I., Langer, R., Anderson, D. G., Oberholzer, J. Alignate encapsulation as long-term immune protection of allogeneic pancreatic islet cells transplanted into the omental bursa of macaques. **Nature Biomedical Engineering**. 2018; 2(11) 810-821.

2. Wesselhoeft, R.A., Kowalski, P.S., Anderson, D.G. Engineering circular RNA for potent and stable translation in eukaryotic cells**. Nature Communications**. 2018; 9(1):2629. doi: 10.1038/s41467-018-05096-6. PMCID: PMC6035260.

3. Yin, H., Song, C.Q., Suresh, S., Wu, Q., Walsh, S., Rhym, L.H., Mintzer, E., Bolukbasi, M.F., Zhu, L.J., Kauffman, K., Mou, H., Oberholzer, A., Ding, J., Kwan, S.Y., Bogorad, R.L., Zatsepin, T., Koteliansky, V., Wolfe, S.A., Xue, W., Langer, R., Anderson, D.G. Structure-guided chemical modification of guide RNA enables potent non-viral in vivo genome editing. **Nature Biotechnology** 2017; 35(12):1179-1187. doi: 10.1038/nbt.4005. PMID: 29131148.

4. Doloff, J.C., Veiseh, O., Vegas, A.J., Tam, H.H., Farah, S., Ma, M., Li, J., Bader, A., Chiu, A., Sadraei, A., Aresta-Dasilva, S., Griffin, M., Jhunjhunwala, S., Webber, M., Siebert, S., Tang, K., Chen, M., Langan, E., Dholokia, N., Thakrar, R., Qi, M., Oberholzer, J., Greiner, D.L., Langer, R., Anderson, D.G. Colony stimulating factor-1 receptor is a central component of the foreign body response to biomaterial implants in rodents and non-human primates. **Nature Materials** 2017; 16(6):671-680. doi: 10.1038/nmat4866. PMCID: PMC5445003.

5. Chahal, J.S., Khan, O.F., Cooper, C.L., McPartlan, J.S., Tsosie, J.K., Tilley, L.D., Sidik, S.M., Lourido, S., Langer, R., Bavari, S., Ploegh, H.L., Anderson, D.G. Dendrimer-RNA nanoparticles generate protective immunity against lethal Ebola, H1N1 influenza, and Toxoplasma gondii challenges with a single dose. **Proc Natl Acad Sci U S A.** 2016; 113(29):E4133-42. doi: 10.1073/pnas.1600299113. PMCID: PMC4961123.

6. Sager, H.B., Dutta, P., Dahlman, J.E., Hulsmans, M., Courties, G., Sun, Y., Heidt, T., Vinegoni, C., Borodovsky, A., Fitzgerald, K., Wojtkiewicz, G.R., Iwamoto, Y., Tricot, B., Khan, O.F., Kauffman, K.J., Xing, Y., Shaw, T.E., Libby, P., Langer, R., Weissleder, R.,

Swirski, F.K., Anderson, D.G., Nahrendorf, M. RNAi targeting multiple cell adhesion molecules reduces immune cell recruitment and vascular inflammation after myocardial infarction. **Science Translational Medicine**. 2016; 8(342):342ra80. doi: 10.1126/scitranslmed.aaf1435. PMCID: PMC5125383.

7. Vegas, A.J., Veiseh, O., Gürtler, M., Millman, J.R., Pagliuca, F.W., Bader, A.R., Doloff, J.C., Li, J., Chen, M., Olejnik, K., Tam, H.H., Jhunjhunwala, S., Langan, E., Aresta-Dasilva, S., Gandham, S., McGarrigle, J.J., Bochenek, M.A., Hollister-Lock, J., Oberholzer, J., Greiner, D.L., Weir, G.C., Melton, D.A., Langer, R., Anderson, D.G. Long-term glycemic control using polymer-encapsulated human stem cell-derived beta cells in immune-competent mice. **Nature Medicine**. 2016; 22(3):306-11. doi: 10.1038/nm.4030. PMCID: PMC4825868.

8. Yin, H., Song, C.Q., Dorkin, J.R., Zhu, L.J., Li, Y., Wu, Q., Park, A., Yang, J., Suresh, S., Bizhanova, A., Gupta, A., Bolukbasi, M.F., Walsh, S., Bogorad, R.L., Gao, G., Weng, Z., Dong, Y., Koteliansky, V., Wolfe, S.A., Langer, R., Xue, W., Anderson, D.G. Therapeutic genome editing by combined viral and non-viral delivery of CRISPR system components in vivo. **Nature Biotechnology**. 2016; 34(3):328-333. doi: 10.1038/nbt.3471. PMID: 26829318.

9. Vegas, A.J., Veiseh, O., Doloff, J.C., Ma, M., Tam, H.H., Bratlie, K., Li, J., Bader, A.R., Langan, E., Olejnik, K., Fenton, P., Kang, J.W., Hollister-Locke, J., Bochenek, M.A., Chiu, A., Siebert, S., Tang, K., Jhunjhunwala, S., Aresta-Dasilva, S., Dholakia, N., Thakrar, R., Vietti, T., Chen, M., Cohen, J., Siniakowicz, K., Qi, M., McGarrigle, J., Lyle, S., Harlan, D.M., Greiner, D.L., Oberholzer, J., Weir, G.C., Langer, R., Anderson, D.G. Combinatorial hydrogel library enables identification of materials that mitigate the foreign body response in primates. **Nature Biotechnology**. 2016; 34(3):345-352. doi: 10.1038/nbt.3462. PMCID: PMC4904301.

10. Veiseh, O., Doloff, J. C., Ma, M., Vegas, A. J., Tam, H., Bader, J. A., Li, J., Langan, E., Wyckoff, J., Loo, W. S., Jhunjhunwala, S., Chiu, A., Siebert, S., Tang, K., Hollister-Lock, J., Aresta-Dasilva, S., Bochenek, M., Mendoza-Elias, J., Wang, Y., Qi, M., Lavin, D. M., Chen, M., Dholakia, N., Thakrar, R., Lacík, I., Weir, C. G., Oberholzer, J., Greiner, D. L., Langer, R., and Anderson, D. G. Size- and shape-dependent foreign body immune response to materials implanted in rodents and non-human primates. **Nature Materials**. 2015; 14(6):643-51. doi: 10.1038/nmat4290. PMCID: PMC4477281.