

## References

- Abmayr, Susan M., and Grace K. Pavlath. 2012. "Myoblast Fusion: Lessons from Flies and Mice." *Development (Cambridge, England)* 139 (4): 641–56. <https://doi.org/10.1242/dev.068353>.
- "Ageing and Health." 2018. February 5, 2018. <https://www.who.int/news-room/factsheets/detail/ageing-and-health>.
- Agley, Chibeza C., Cristiana P. Velloso, Norman R. Lazarus, and Stephen D. R. Harridge. 2012. "An Image Analysis Method for the Precise Selection and Quantitation of Fluorescently Labeled Cellular Constituents." *Journal of Histochemistry and Cytochemistry* 60 (6): 428–38. <https://doi.org/10.1369/0022155412442897>.
- Agostini, Tommaso, Davide Lazzeri, and Giuseppe Spinelli. 2013. "Anterolateral Thigh Flap: Systematic Literature Review of Specific Donor-Site Complications and Their Management." *Journal of Cranio-Maxillofacial Surgery* 41 (1): 15–21. <https://doi.org/10.1016/j.jcms.2012.05.003>.
- Ahadian, Samad, Serge Ostrovidov, Vahid Hosseini, Hirokazu Kaji, Murugan Ramalingam, Hojae Bae, and Ali Khademhosseini. 2013. "Electrical Stimulation as a Biomimicry Tool for Regulating Muscle Cell Behavior." *Organogenesis* 9 (2): 87–92. <https://doi.org/10.4161/org.25121>.
- Ahadian, Samad, Javier Ramón-Azcón, Serge Ostrovidov, Gulden Camci-Unal, Vahid Hosseini, Hirokazu Kaji, Kosuke Ino, Hitoshi Shiku, Ali Khademhosseini, and Tomokazu Matsue. 2012. "Interdigitated Array of Pt Electrodes for Electrical Stimulation and Engineering of Aligned Muscle Tissue." *Lab on a Chip* 12 (18): 3491–3503. <https://doi.org/10.1039/C2LC40479F>.
- Alberts, Bruce, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, and Peter Walter. 2002. "Ion Channels and the Electrical Properties of Membranes." <https://www.ncbi.nlm.nih.gov/books/NBK26910/>.
- Alford, Patrick W., Alexander P. Nesmith, Johannes N. Seywerd, Anna Grosberg, and Kevin Kit Parker. 2011. "Vascular Smooth Muscle Contractility Depends on Cell Shape." *Integrative Biology* 3 (11): 1063. <https://doi.org/10.1039/c1ib00061f>.
- Ambrosi, Christina M., Aleksandra Klimas, Jinzhu Yu, and Emilia Entcheva. 2014. "Cardiac Applications of Optogenetics." *Progress in Biophysics and Molecular Biology*, Novel Technologies as Drivers of Progress in Cardiac Biophysics, 115 (2): 294–304. <https://doi.org/10.1016/j.pbiomolbio.2014.07.001>.

- Andres, Vicente, and Walsh. 1996. "Myogenin Expression, Cell Cycle Withdrawal, and Phenotypic Differentiation Are Temporally Separable Events That Precede Cell Fusion upon Myogenesis." *The Journal of Cell Biology* 132 (4): 657–66.
- Antigny, Fabrice, Stéphane Koenig, Laurent Bernheim, and Maud Frieden. 2013. "During Post-Natal Human Myogenesis, Normal Myotube Size Requires TRPC1- and TRPC4-Mediated Ca<sup>2+</sup> Entry." *J Cell Sci* 126 (11): 2525–33. <https://doi.org/10.1242/jcs.122911>.
- Asano, Toshifumi, Toru Ishizua, and Hiromu Yawo. 2012. "Optically Controlled Contraction of Photosensitive Skeletal Muscle Cells." *Biotechnology and Bioengineering* 109 (1): 199–204. <https://doi.org/10.1002/bit.23285>.
- Asano, Toshifumi, Toru Ishizuka, Keisuke Morishima, and Hiromu Yawo. 2015. "Optogenetic Induction of Contractile Ability in Immature C2C12 Myotubes." *Scientific Reports* 5 (February). <https://doi.org/10.1038/srep08317>.
- Atala, Anthony. 2004. "Tissue Engineering and Regenerative Medicine: Concepts for Clinical Application." *Rejuvenation Research* 7 (1): 15–31. <https://doi.org/10.1089/154916804323105053>.
- Ayres, Chantal, Gary L. Bowlin, Scott C. Henderson, Leander Taylor, Jackie Shultz, John Alexander, Todd A. Telemeco, and David G. Simpson. 2006. "Modulation of Anisotropy in Electrospun Tissue-Engineering Scaffolds: Analysis of Fiber Alignment by the Fast Fourier Transform." *Biomaterials* 27 (32): 5524–34. <https://doi.org/10.1016/j.biomaterials.2006.06.014>.
- Bach, A. D., J. P. Beier, J. Stern-Staeter, and R. E. Horch. 2004. "Skeletal Muscle Tissue Engineering." *Journal of Cellular and Molecular Medicine* 8 (4): 413–22.
- Bader, D., T. Masaki, and D. A. Fischman. 1982. "Immunochemical Analysis of Myosin Heavy Chain during Avian Myogenesis in Vivo and in Vitro." *The Journal of Cell Biology* 95 (3): 763–70.
- Badie, Nima, and Nenad Bursac. 2009. "Novel Micropatterned Cardiac Cell Cultures with Realistic Ventricular Microstructure." *Biophysical Journal* 96 (9): 3873–85. <https://doi.org/10.1016/j.bpj.2009.02.019>.
- Bae, Gyu-Un, Ursula Gaio, Youn-Joo Yang, Hye-Jin Lee, Jong-Sun Kang, and Robert S. Krauss. 2008. "Regulation of Myoblast Motility and Fusion by the CXCR4-Associated Sialomucin, CD164." *The Journal of Biological Chemistry* 283 (13): 8301–9. <https://doi.org/10.1074/jbc.M706730200>.

- Bae, Hojae, Amey S. Puranik, Robert Gauvin, Famarz Edalat, Brenda Carrillo-Conde, Nicholas A. Peppas, and Ali Khademhosseini. 2012. "Building Vascular Networks." *Science Translational Medicine* 4 (160): 160ps23. <https://doi.org/10.1126/scitranslmed.3003688>.
- Bagal, Sharan K., Alan D. Brown, Peter J. Cox, Kiyoyuki Omoto, Robert M. Owen, David C. Pryde, Benjamin Sidders, et al. 2013. "Ion Channels as Therapeutic Targets: A Drug Discovery Perspective." *Journal of Medicinal Chemistry* 56 (3): 593–624. <https://doi.org/10.1021/jm3011433>.
- Bajaj, Piyush, Bobby Reddy, Larry Millet, Chunan Wei, Pinar Zorlutuna, Gang Bao, and Rashid Bashir. 2011. "Patterning the Differentiation of C2C12 Skeletal Myoblasts." *Integrative Biology* 3 (9): 897. <https://doi.org/10.1039/c1ib00058f>.
- Bajaj, Piyush, Jose A. Rivera, Daniel Marchwiany, Vita Solovyeva, and Rashid Bashir. 2014. "Graphene-Based Patterning and Differentiation of C2C12 Myoblasts." *Advanced Healthcare Materials* 3 (7): 995–1000. <https://doi.org/10.1002/adhm.201300550>.
- Baker, H.b., J.a. Passipieri, Mevan Siriwardane, Mary D. Ellenburg, Manasi Vadhavkar, Christopher R. Bergman, Justin M. Saul, Seth Tomblyn, Luke Burnett, and George J. Christ. 2017. "Cell and Growth Factor-Loaded Keratin Hydrogels for Treatment of Volumetric Muscle Loss in a Mouse Model." *Tissue Engineering Part A* 23 (11–12): 572–84. <https://doi.org/10.1089/ten.tea.2016.0457>.
- Ballestrem, C., B. Wehrle-Haller, and B. A. Imhof. 1998. "Actin Dynamics in Living Mammalian Cells." *Journal of Cell Science* 111 (Pt 12) (June): 1649–58.
- Banghart, Matthew R., Matthew Volgraf, and Dirk Trauner. 2006. "Engineering Light-Gated Ion Channels." *Biochemistry* 45 (51): 15129–41. <https://doi.org/10.1021/bi0618058>.
- Baquero-Perez, Belinda, Suresh V. Kuchipudi, Rahul K. Nelli, and Kin-Chow Chang. 2012. "A Simplified but Robust Method for the Isolation of Avian and Mammalian Muscle Satellite Cells." *BMC Cell Biology* 13 (1): 16. <https://doi.org/10.1186/1471-2121-13-16>.
- Barchi, R. L. 1993. "Ion Channels and Disorders of Excitation in Skeletal Muscle." *Current Opinion in Neurology and Neurosurgery* 6 (1): 40–47.
- Barrett, Kim E, Susan M Barman, Scott Boitano, and Heddwen Brooks. 2009. "Ganong's Review of Medical Physiology. 23." NY: McGraw-Hill Medical.

- Barritt, Gregory J., Jinglong Chen, and Grigori Y. Rychkov. 2008. "Ca(2+) -Permeable Channels in the Hepatocyte Plasma Membrane and Their Roles in Hepatocyte Physiology." *Biochimica Et Biophysica Acta* 1783 (5): 651–72. <https://doi.org/10.1016/j.bbamcr.2008.01.016>.
- Bartolo, Paulo Jorge da Silva. 2011. *Innovative Developments in Virtual and Physical Prototyping: Proceedings of the 5th International Conference on Advanced Research in Virtual and Rapid Prototyping, Leiria, Portugal, 28 September - 1 October, 2011*. CRC Press.
- Berridge, Michael J., Peter Lipp, and Martin D. Bootman. 2000. "The Versatility and Universality of Calcium Signalling." *Nature Reviews Molecular Cell Biology* 1 (1): 11. <https://doi.org/10.1038/35036035>.
- Berry, Samuel B., Tianzi Zhang, John H. Day, Xiaojing Su, Ilham Z. Wilson, Erwin Berthier, and Ashleigh B. Theberge. 2017. "Upgrading Well Plates Using Open Microfluidic Patterning." *Lab on a Chip* 17 (24): 4253–64. <https://doi.org/10.1039/C7LC00878C>.
- Bershadsky, Alexander D., Nathalie Q. Balaban, and Benjamin Geiger. 2003. "Adhesion-Dependent Cell Mechanosensitivity." *Annual Review of Cell and Developmental Biology* 19: 677–95. <https://doi.org/10.1146/annurev.cellbio.19.111301.153011>.
- Bettadapur, Archana, Gio C. Suh, Nicholas A. Geisse, Evelyn R. Wang, Clara Hua, Holly A. Huber, Alyssa A. Viscio, Joon Young Kim, Julie B. Strickland, and Megan L. McCain. 2016. "Prolonged Culture of Aligned Skeletal Myotubes on Micromolded Gelatin Hydrogels." *Scientific Reports* 6 (June): 28855. <https://doi.org/10.1038/srep28855>.
- Bhandari, Rena N.B., Lisa A. Riccalton, Andrew L. Lewis, Jeffrey R. Fry, Alison H. Hammond, Saul J.B. Tendler, and Kevin M. Shakesheff. 2001. "Liver Tissue Engineering: A Role for Co-Culture Systems in Modifying Hepatocyte Function and Viability." *Tissue Engineering* 7 (3): 345–57. <https://doi.org/10.1089/10763270152044206>.
- Bhatia, Sangeeta N., Martin L. Yarmush, and Mehmet Toner. 1997. "Controlling Cell Interactions by Micropatterning in Co-Cultures: Hepatocytes and 3T3 Fibroblasts." *Journal of Biomedical Materials Research* 34 (2): 189–99. [https://doi.org/10.1002/\(SICI\)1097-4636\(199702\)34:2<189::AID-JBM8>3.0.CO;2-M](https://doi.org/10.1002/(SICI)1097-4636(199702)34:2<189::AID-JBM8>3.0.CO;2-M).

- Bian, Weining, and Nenad Bursac. 2008. "Tissue Engineering of Functional Skeletal Muscle: Challenges and Recent Advances." *IEEE Engineering in Medicine and Biology Magazine: The Quarterly Magazine of the Engineering in Medicine & Biology Society* 27 (5): 109–13. <https://doi.org/10.1109/MEMB.2008.928460>.
- Bian, Weining, and Nenad Bursac. 2009. "Engineered Skeletal Muscle Tissue Networks with Controllable Architecture." *Biomaterials* 30 (7): 1401–12. <https://doi.org/10.1016/j.biomaterials.2008.11.015>.
- Bian, Weining, Mark Juhas, Terry W. Pfeiler, and Nenad Bursac. 2011. "Local Tissue Geometry Determines Contractile Force Generation of Engineered Muscle Networks." *Tissue Engineering Part A* 18 (9–10): 957–67. <https://doi.org/10.1089/ten.tea.2011.0313>.
- Bianchi, Bernardo, Chiara Copelli, Silvano Ferrari, Andrea Ferri, and Enrico Sesenna. 2009. "Free Flaps: Outcomes and Complications in Head and Neck Reconstructions." *Journal of Cranio-Maxillo-Facial Surgery: Official Publication of the European Association for Cranio-Maxillo-Facial Surgery* 37 (8): 438–42. <https://doi.org/10.1016/j.jcms.2009.05.003>.
- Billiet, Thomas, Elien Gevaert, Thomas De Schryver, Maria Cornelissen, and Peter Dubruel. 2014. "The 3D Printing of Gelatin Methacrylamide Cell-Laden Tissue-Engineered Constructs with High Cell Viability." *Biomaterials* 35 (1): 49–62.
- Binder, Kyle W., Arthur J. Allen, James J. Yoo, and Anthony Atala. 2011. "Drop-on-Demand Inkjet Bioprinting: A Primer." *Gene Therapy and Regulation* 6 (1): 33–49. <https://doi.org/10.1142/S1568558611000258>.
- Bischoff, Richard. 1974. "Enzymatic Liberation of Myogenic Cells from Adult Rat Muscle." *The Anatomical Record* 180 (4): 645–61. <https://doi.org/10.1002/ar.1091800410>.
- Blackmore, P F, W G Strickland, S B Bocckino, and J H Exton. 1986. "Mechanism of Hepatic Glycogen Synthase Inactivation Induced by Ca<sup>2+</sup>-Mobilizing Hormones. Studies Using Phospholipase C and Phorbol Myristate Acetate." *Biochemical Journal* 237 (1): 235–42.
- Boonen, K. J. M., K. Y. Rosaria-Chak, F. P. T. Baaijens, D. W. J. van der Schaft, and M. J. Post. 2009. "Essential Environmental Cues from the Satellite Cell Niche: Optimizing Proliferation and Differentiation." *American Journal of Physiology. Cell Physiology* 296 (6): C1338-1345. <https://doi.org/10.1152/ajpcell.00015.2009>.

- Bootman, Martin D., Katja Rietdorf, Tony Collins, Simon Walker, and Michael Sanderson. 2013. "Ca<sup>2+</sup>-Sensitive Fluorescent Dyes and Intracellular Ca<sup>2+</sup> Imaging." *Cold Spring Harbor Protocols* 2013 (2): 83–99. <https://doi.org/10.1101/pdb.top066050>.
- Borselli, Cristina, Hannah Storrie, Frank Benesch-Lee, Dmitry Shvartsman, Christine Cezar, Jeff W. Lichtman, Herman H. Vandenburg, and David J. Mooney. 2010. "Functional Muscle Regeneration with Combined Delivery of Angiogenesis and Myogenesis Factors." *Proceedings of the National Academy of Sciences of the United States of America* 107 (8): 3287–92. <https://doi.org/10.1073/pnas.0903875106>.
- Bortner, Carl D., and John A. Cidlowski. 2014. "Ion Channels and Apoptosis in Cancer." *Phil. Trans. R. Soc. B* 369 (1638): 20130104. <https://doi.org/10.1098/rstb.2013.0104>.
- Bray, Mark-Anthony, Sean P. Sheehy, and Kevin Kit Parker. 2008. "Sarcomere Alignment Is Regulated by Myocyte Shape." *Cell Motility and the Cytoskeleton* 65 (8): 641–51. <https://doi.org/10.1002/cm.20290>.
- Bruusgaard, J. C., K. Liestøl, M. Ekmark, K. Kollstad, and K. Gundersen. 2003. "Number and Spatial Distribution of Nuclei in the Muscle Fibres of Normal Mice Studied in Vivo." *The Journal of Physiology* 551 (Pt 2): 467–78. <https://doi.org/10.1113/jphysiol.2003.045328>.
- Bt, Corona, Machingal Ma, Criswell T, Vadhavkar M, Dannahower Ac, Bergman C, Zhao W, and Christ Gj. 2012. "Further Development of a Tissue Engineered Muscle Repair Construct in Vitro for Enhanced Functional Recovery Following Implantation in Vivo in a Murine Model of Volumetric Muscle Loss Injury." *Tissue Engineering. Part A* 18 (11–12): 1213–28. <https://doi.org/10.1089/ten.TEA.2011.0614>.
- Bursac, Nenad, Mark Juhas, and Thomas A. Rando. 2015. "Synergizing Engineering and Biology to Treat and Model Skeletal Muscle Injury and Disease." *Annual Review of Biomedical Engineering* 17: 217–42. <https://doi.org/10.1146/annurev-bioeng-071114-040640>.
- Cardamone, Michael, Basil T. Darras, and Monique M. Ryan. 2008. "Inherited Myopathies and Muscular Dystrophies." *Seminars in Neurology* 28 (2): 250–59. <https://doi.org/10.1055/s-2008-1062269>.

- Cardarelli, Francesco, Luca Digiacomo, Cristina Marchini, Augusto Amici, Fabrizio Salomone, Giuseppe Fiume, Alessandro Rossetta, Enrico Gratton, Daniela Pozzi, and Giulio Caracciolo. 2016. "The Intracellular Trafficking Mechanism of Lipofectamine-Based Transfection Reagents and Its Implication for Gene Delivery." *Scientific Reports* 6 (May): srep25879. <https://doi.org/10.1038/srep25879>.
- Cardasis, Constance A., and George W. Cooper. 1975. "An Analysis of Nuclear Numbers in Individual Muscle Fibers during Differentiation and Growth: A Satellite Cell-Muscle Fiber Growth Unit." *Journal of Experimental Zoology* 191 (3): 347–57. <https://doi.org/10.1002/jez.1401910305>.
- Chal, Jérôme, and Olivier Pourquié. 2017. "Making Muscle: Skeletal Myogenesis *in Vivo* and *in Vitro*." *Development* 144 (12): 2104–22. <https://doi.org/10.1242/dev.151035>.
- Choi, Yeong-Jin, Taek Gyoung Kim, Jonghyeon Jeong, Hee-Gyeong Yi, Ji Won Park, Woonbong Hwang, and Dong-Woo Cho. 2016. "3D Cell Printing of Functional Skeletal Muscle Constructs Using Skeletal Muscle-Derived Bioink." *Advanced Healthcare Materials* 5 (20): 2636–45. <https://doi.org/10.1002/adhm.201600483>.
- Chua, Chee Kai, and Wai Yee Yeong. 2014. *Bioprinting: Principles and Applications*. World Scientific Publishing Co Inc.
- Cimetta, Elisa, Sara Pizzato, Sveva Bollini, Elena Serena, Paolo De Coppi, and Nicola Elvassore. 2009. "Production of Arrays of Cardiac and Skeletal Muscle Myofibers by Micropatterning Techniques on a Soft Substrate." *Biomedical Microdevices* 11 (2): 389–400. <https://doi.org/10.1007/s10544-008-9245-9>.
- Cittadella Vigodarzere, Giorgio, and Sara Mantero. 2014. "Skeletal Muscle Tissue Engineering: Strategies for Volumetric Constructs." *Striated Muscle Physiology* 5: 362. <https://doi.org/10.3389/fphys.2014.00362>.
- Clark, P., D. Coles, and M. Peckham. 1997. "Preferential Adhesion to and Survival on Patterned Laminin Organizes Myogenesis *in Vitro*." *Experimental Cell Research* 230 (2): 275–83. <https://doi.org/10.1006/excr.1996.3429>.
- Clark, P., G. A. Dunn, A. Knibbs, and M. Peckham. 2002. "Alignment of Myoblasts on Ultrafine Gratings Inhibits Fusion *in Vitro*." *The International Journal of Biochemistry & Cell Biology, Cell motility*, 34 (7): 816–25. [https://doi.org/10.1016/S1357-2725\(01\)00180-7](https://doi.org/10.1016/S1357-2725(01)00180-7).



- Collins, Charlotte A., Irwin Olsen, Peter S. Zammit, Louise Heslop, Aviva Petrie, Terence A. Partridge, and Jennifer E. Morgan. 2005. "Stem Cell Function, Self-Renewal, and Behavioral Heterogeneity of Cells from the Adult Muscle Satellite Cell Niche." *Cell* 122 (2): 289–301. <https://doi.org/10.1016/j.cell.2005.05.010>.
- Constantin, B., C. Cognard, and G. Raymond. 1995. "Myoblast Fusion Is Not a Prerequisite for the Appearance of Calcium Current, Calcium Release, and Contraction in Rat Skeletal Muscle Cells Developing in Culture." *Experimental Cell Research* 217 (2): 497–505. <https://doi.org/10.1006/excr.1995.1115>.
- Cooper, Ashleigh, Soumen Jana, Narayan Bhattarai, and Miqin Zhang. 2010. "Aligned Chitosan-Based Nanofibers for Enhanced Myogenesis." *Journal of Materials Chemistry* 20 (40): 8904. <https://doi.org/10.1039/c0jm01841d>.
- Cooper, S. T., A. L. Maxwell, E. Kizana, M. Ghodusi, E. C. Hardeman, I. E. Alexander, D. G. Allen, and K. N. North. 2004. "C2C12 Co-Culture on a Fibroblast Substratum Enables Sustained Survival of Contractile, Highly Differentiated Myotubes with Peripheral Nuclei and Adult Fast Myosin Expression." *Cell Motility and the Cytoskeleton* 58 (3): 200–211. <https://doi.org/10.1002/cm.20010>.
- Corona, Benjamin T., Jessica C. Rivera, Johnny G. Owens, Joseph C. Wenke, and Christopher R. Rathbone. 2015. "Volumetric Muscle Loss Leads to Permanent Disability Following Extremity Trauma." *Journal of Rehabilitation Research and Development* 52 (7): 785–92. <https://doi.org/10.1682/JRRD.2014.07.0165>.
- Costantini, Marco, Stefano Testa, Pamela Mozetic, Andrea Barbetta, Claudia Fuoco, Ersilia Fornetti, Francesco Tamiro, et al. 2017. "Microfluidic-Enhanced 3D Bioprinting of Aligned Myoblast-Laden Hydrogels Leads to Functionally Organized Myofibers in Vitro and in Vivo." *Biomaterials* 131: 98–110. <https://doi.org/10.1016/j.biomaterials.2017.03.026>.
- Counsel, P., and W. Breidahl. 2010. "Muscle Injuries of the Lower Leg." *Seminars in Musculoskeletal Radiology* 14 (2): 162–75. <https://doi.org/10.1055/s-0030-1253158>.
- Cs, Cheng, Davis Bn, Madden L, Bursac N, and Truskey Ga. 2014. "Physiology and Metabolism of Tissue-Engineered Skeletal Muscle., Physiology and Metabolism of Tissue Engineered Skeletal Muscle." *Experimental Biology and Medicine (Maywood, N.J.), Experimental Biology and Medicine (Maywood, N.J.)* 239, 239 (9, 9): 1203, 1203–14. <https://doi.org/10.1177/1535370214538589>, [10.1177/1535370214538589](https://doi.org/10.1177/1535370214538589).

- Cui, Xiaofeng, Guifang Gao, and Yongjun Qiu. 2013. "Accelerated Myotube Formation Using Bioprinting Technology for Biosensor Applications." *Biotechnology Letters* 35 (3): 315–21. <https://doi.org/10.1007/s10529-012-1087-0>.
- Cvetkovic, Caroline, Ritu Raman, Vincent Chan, Brian J. Williams, Madeline Tolish, Piyush Bajaj, Mahmut Selman Sakar, H. Harry Asada, M. Taher A. Saif, and Rashid Bashir. 2014. "Three-Dimensionally Printed Biological Machines Powered by Skeletal Muscle." *Proceedings of the National Academy of Sciences of the United States of America* 111 (28): 10125–30. <https://doi.org/10.1073/pnas.1401577111>.
- Cvetkovic, Caroline, Max H. Rich, Ritu Raman, Hyunjoon Kong, and Rashid Bashir. 2017. "A 3D-Printed Platform for Modular Neuromuscular Motor Units." *Microsystems & Nanoengineering* 3 (June): 17015. <https://doi.org/10.1038/micronano.2017.15>.
- Dababneh, Amer B., and Ibrahim T. Ozbolat. 2014. "Bioprinting Technology: A Current State-of-the-Art Review." *Journal of Manufacturing Science and Engineering* 136 (6): 061016-061016–11. <https://doi.org/10.1115/1.4028512>.
- Danoviz, Maria Elena, and Zipora Yablonka-Reuveni. 2012. "Skeletal Muscle Satellite Cells: Background and Methods for Isolation and Analysis in a Primary Culture System." *Methods in Molecular Biology (Clifton, N.J.)* 798: 21–52. [https://doi.org/10.1007/978-1-61779-343-1\\_2](https://doi.org/10.1007/978-1-61779-343-1_2).
- Darbellay, Basile, Serge Arnaudeau, Stéphane König, Hélène Jousset, Charles Bader, Nicolas Demaurex, and Laurent Bernheim. 2009. "STIM1- and Orai1-Dependent Store-Operated Calcium Entry Regulates Human Myoblast Differentiation." *Journal of Biological Chemistry* 284 (8): 5370–80. <https://doi.org/10.1074/jbc.M806726200>.
- Dauer, William T., and Howard J. Worman. 2009. "The Nuclear Envelope as a Signaling Node in Development and Disease." *Developmental Cell* 17 (5): 626–38. <https://doi.org/10.1016/j.devcel.2009.10.016>.
- Day, Kenneth, Gabi Shefer, Joshua B. Richardson, Grigori Enikolopov, and Zipora Yablonka-Reuveni. 2007. "Nestin-GFP Reporter Expression Defines the Quiescent State of Skeletal Muscle Satellite Cells." *Developmental Biology* 304 (1): 246–59. <https://doi.org/10.1016/j.ydbio.2006.12.026>.
- Day, Kenneth, Gabi Shefer, Andrew Shearer, and Zipora Yablonka-Reuveni. 2010. "The Depletion of Skeletal Muscle Satellite Cells with Age Is Concomitant with

- Reduced Capacity of Single Progenitors to Produce Reserve Progeny.” *Developmental Biology* 340 (2): 330–43. <https://doi.org/10.1016/j.ydbio.2010.01.006>.
- Deisseroth, Karl. 2011. “Optogenetics.” *Nature Methods* 8 (1): 26–29. <https://doi.org/10.1038/nmeth.f.324>.
- Dennis, Robert G., and Paul E. Kosnik. 2000. “Excitability and Isometric Contractile Properties of Mammalian Skeletal Muscle Constructs Engineered in Vitro.” *In Vitro Cellular & Developmental Biology - Animal* 36 (5): 327–35. [https://doi.org/10.1290/1071-2690\(2000\)036<0327:EAICPO>2.0.CO;2](https://doi.org/10.1290/1071-2690(2000)036<0327:EAICPO>2.0.CO;2).
- Dewys, W. D., C. Begg, P. T. Lavin, P. R. Band, J. M. Bennett, J. R. Bertino, M. H. Cohen, et al. 1980. “Prognostic Effect of Weight Loss Prior to Chemotherapy in Cancer Patients. Eastern Cooperative Oncology Group.” *The American Journal of Medicine* 69 (4): 491–97. [https://doi.org/10.1016/s0149-2918\(05\)80001-3](https://doi.org/10.1016/s0149-2918(05)80001-3).
- Dixon, J. Bryan, Scott N. Drum, and Ryan Weatherwax. 2016. “Structure and Organization of Skeletal Muscle.” In *Muscular Injuries in the Posterior Leg*, 27–34. Springer, Boston, MA. [https://doi.org/10.1007/978-1-4899-7651-2\\_3](https://doi.org/10.1007/978-1-4899-7651-2_3).
- Dixon, Thomas Anthony, Eliad Cohen, Dana M. Cairns, Maria Rodriguez, Juanita Mathews, Rod R. Jose, and David L. Kaplan. 2018. “Bioinspired Three-Dimensional Human Neuromuscular Junction Development in Suspended Hydrogel Arrays.” *Tissue Engineering Part C: Methods* 24 (6): 346–59. <https://doi.org/10.1089/ten.tec.2018.0062>.
- Dominguez, Roberto, and Kenneth C. Holmes. 2011. “Actin Structure and Function.” *Annual Review of Biophysics* 40 (June): 169–86. <https://doi.org/10.1146/annurev-biophys-042910-155359>.
- Drew, Nancy K., Mackenzie A. Eagleson, Danny B. Baldo Jr., Kevin Kit Parker, and Anna Grosberg. 2015. “Metrics for Assessing Cytoskeletal Orientational Correlations and Consistency.” *PLoS Computational Biology* 11 (4). <https://doi.org/10.1371/journal.pcbi.1004190>.
- Drzymala-Celichowska, H., J. Karolczak, M. J. Redowicz, and D. Bukowska. 2012. “The Content of Myosin Heavy Chains in Hindlimb Muscles of Female and Male Rats.” *Journal of Physiology and Pharmacology: An Official Journal of the Polish Physiological Society* 63 (2): 187–93.
- Duan, Bin, Laura A. Hockaday, Kevin H. Kang, and Jonathan T. Butcher. 2013. “3D Bioprinting of Heterogeneous Aortic Valve Conduits with Alginate/Gelatin

- Hydrogels.” *Journal of Biomedical Materials Research Part A* 101A (5): 1255–64. <https://doi.org/10.1002/jbm.a.34420>.
- Duan, Rui, and Patricia J. Gallagher. 2009. “Dependence of Myoblast Fusion on a Cortical Actin Wall and Nonmuscle Myosin IIA.” *Developmental Biology* 325 (2): 374–85. <https://doi.org/10.1016/j.ydbio.2008.10.035>.
- Duraiswamy, Navaneetham. 2009. “Muscular dystrophy - Rare Diseases India.” 2009. <http://www.rarediseasesindia.org/muscular dystrophy>.
- Dutton, E K, A M Simon, and S J Burden. 1993. “Electrical Activity-Dependent Regulation of the Acetylcholine Receptor Delta-Subunit Gene, MyoD, and Myogenin in Primary Myotubes.” *Proceedings of the National Academy of Sciences of the United States of America* 90 (5): 2040–44.
- Ehrt, Sabine, and Dirk Schnappinger. 2003. “Isolation of Plasmids from E. Coli by Alkaline Lysis.” In *E. Coli Plasmid Vectors*, 75–78. Methods in Molecular Biology™. Humana Press. <https://doi.org/10.1385/1-59259-409-3:75>.
- Exton, J. H. 1987. “Mechanisms of Hormonal Regulation of Hepatic Glucose Metabolism.” *Diabetes/Metabolism Reviews* 3 (1): 163–83.
- Fakhfakh, Raouia, Annick Michaud, and Jacques P. Tremblay. 2011. “Blocking the Myostatin Signal with a Dominant Negative Receptor Improves the Success of Human Myoblast Transplantation in Dystrophic Mice.” *Molecular Therapy: The Journal of the American Society of Gene Therapy* 19 (1): 204–10. <https://doi.org/10.1038/mt.2010.171>.
- Falconnet, Didier, Gabor Csucs, H. Michelle Grandin, and Marcus Textor. 2006. “Surface Engineering Approaches to Micropattern Surfaces for Cell-Based Assays.” *Biomaterials* 27 (16): 3044–63. <https://doi.org/10.1016/j.biomaterials.2005.12.024>.
- Faucheux, N, R Schweiss, K Lützow, C Werner, and T Groth. 2004. “Self-Assembled Monolayers with Different Terminating Groups as Model Substrates for Cell Adhesion Studies.” *Biomaterials* 25 (14): 2721–30. <https://doi.org/10.1016/j.biomaterials.2003.09.069>.
- Feinberg, Adam W., Patrick W. Alford, Hongwei Jin, Crystal M. Ripplinger, Andreas A. Werdich, Sean P. Sheehy, Anna Grosberg, and Kevin Kit Parker. 2012. “Controlling the Contractile Strength of Engineered Cardiac Muscle by Hierarchical Tissue Architecture.” *Biomaterials* 33 (August): 5732–41. <https://doi.org/10.1016/j.biomaterials.2012.04.043>.

- Ficai, Anton, Madalina Georgiana Albu, Mihaela Birsan, Maria Sonmez, Denisa Ficai, Viorica Trandafir, and Ecaterina Andronescu. 2013. "Collagen Hydrolysate Based Collagen/Hydroxyapatite Composite Materials." *Journal of Molecular Structure* 1037 (April): 154–59. <https://doi.org/10.1016/j.molstruc.2012.12.052>.
- Folker, Eric S., and Mary K. Baylies. 2013. "Nuclear Positioning in Muscle Development and Disease." *Frontiers in Physiology* 4 (December). <https://doi.org/10.3389/fphys.2013.00363>.
- Frantz, C., K. M. Stewart, and V. M. Weaver. 2010. "The Extracellular Matrix at a Glance." *Journal of Cell Science* 123 (24): 4195–4200. <https://doi.org/10.1242/jcs.023820>.
- Friday, Bret B., Patrick O. Mitchell, Kristy M. Kegley, and Grace K. Pavlath. 2003. "Calcineurin Initiates Skeletal Muscle Differentiation by Activating MEF2 and MyoD." *Differentiation; Research in Biological Diversity* 71 (3): 217–27. <https://doi.org/10.1046/j.1432-0436.2003.710303.x>.
- Fu, Xin, Huating Wang, and Ping Hu. 2015. "Stem Cell Activation in Skeletal Muscle Regeneration." *Cellular and Molecular Life Sciences* 72 (9): 1663–77. <https://doi.org/10.1007/s00018-014-1819-5>.
- Fujimaki, Shin, Masanao Machida, Tamami Wakabayashi, Makoto Asashima, Tohru Takemasa, and Tomoko Kuwabara. 2016. "Functional Overload Enhances Satellite Cell Properties in Skeletal Muscle." *Stem Cells International* 2016. <https://doi.org/10.1155/2016/7619418>.
- Garcia, Leah A., Keisha K. King, Monica G. Ferrini, Keith C. Norris, and Jorge N. Artaza. 2011. "1,25(OH)<sub>2</sub>Vitamin D<sub>3</sub> Stimulates Myogenic Differentiation by Inhibiting Cell Proliferation and Modulating the Expression of Promyogenic Growth Factors and Myostatin in C2C12 Skeletal Muscle Cells." *Endocrinology* 152 (8): 2976–86. <https://doi.org/10.1210/en.2011-0159>.
- Geisse, Nicholas A., Sean P. Sheehy, and Kevin Kit Parker. 2009. "Control of Myocyte Remodeling in Vitro with Engineered Substrates." *In Vitro Cellular & Developmental Biology - Animal* 45 (7): 343–50. <https://doi.org/10.1007/s11626-009-9182-9>.
- Gerlach, Gerald, and Karl-Friedrich Arndt. 2010. Hydrogel Sensors and Actuators: Engineering and Technology. <https://doi.org/10.1007/978-3-540-75645-3>.
- Gharaibeh, Burhan, Aiping Lu, Jessica Tebbets, Bo Zheng, Joe Feduska, Mihaela Crisan, Bruno Péault, James Cummins, and Johnny Huard. 2008. "Isolation of a Slowly

- Adhering Cell Fraction Containing Stem Cells from Murine Skeletal Muscle by the Preplate Technique.” *Nature Protocols* 3 (9): 1501–9. <https://doi.org/10.1038/nprot.2008.142>.
- Gillies, Allison R., and Richard L. Lieber. 2011. “Structure and Function of the Skeletal Muscle Extracellular Matrix.” *Muscle & Nerve* 44 (3): 318–31. <https://doi.org/10.1002/mus.22094>.
- Gingras, Jacinthe, Robert M. Rioux, Damien Cuvelier, Nicholas A. Geisse, Jeff W. Lichtman, George M. Whitesides, L. Mahadevan, and Joshua R. Sanes. 2009. “Controlling the Orientation and Synaptic Differentiation of Myotubes with Micropatterned Substrates.” *Biophysical Journal* 97 (10): 2771–79. <https://doi.org/10.1016/j.bpj.2009.08.038>.
- Goldspink, D. F., V. M. Cox, S. K. Smith, L. A. Eaves, N. J. Osbaldeston, D. M. Lee, and D. Mantle. 1995. “Muscle Growth in Response to Mechanical Stimuli.” *American Journal of Physiology-Endocrinology and Metabolism* 268 (2): E288–97. <https://doi.org/10.1152/ajpendo.1995.268.2.E288>.
- Goldstein, Todd A., Casey J. Epstein, John Schwartz, Alex Krush, Dan J. Lagalante, Kevin P. Mercadante, David Zeltsman, Lee P. Smith, and Daniel A. Grande. 2016. “Feasibility of Bioprinting with a Modified Desktop 3D Printer.” *Tissue Engineering Part C: Methods* 22 (12): 1071–76. <https://doi.org/10.1089/ten.tec.2016.0286>.
- Goulet, Francine, Claire Normand, and Odette Morin. 1988. “Cellular Interactions Promote Tissue-Specific Function, Biomatrix Deposition and Junctional Communication of Primary Cultured Hepatocytes.” *Hepatology* 8 (5): 1010–18. <https://doi.org/10.1002/hep.1840080506>.
- Grabowska, Iwona, Anna Szeliga, Jerzy Moraczewski, Iwona Czaplicka, and Edyta Brzóska. 2011. “Comparison of Satellite Cell-Derived Myoblasts and C2C12 Differentiation in Two- and Three-Dimensional Cultures: Changes in Adhesion Protein Expression.” *Cell Biology International* 35 (2): 125–33. <https://doi.org/10.1042/CBI20090335>.
- Griffith, Craig K., Cheryl Miller, Richard C.A. Sainson, Jay W. Calvert, Noo Li Jeon, Christopher C.W. Hughes, and Steven C. George. 2005. “Diffusion Limits of an in Vitro Thick Prevascularized Tissue.” *Tissue Engineering* 11 (1–2): 257–66. <https://doi.org/10.1089/ten.2005.11.257>.

- Grogan, Brian F., Joseph R. Hsu, and Skeletal Trauma Research Consortium. 2011. "Volumetric Muscle Loss." *The Journal of the American Academy of Orthopaedic Surgeons* 19 Suppl 1: S35-37.
- Groigno, Laurence, and Michael Whitaker. 1998. "An Anaphase Calcium Signal Controls Chromosome Disjunction in Early Sea Urchin Embryos." *Cell* 92 (2): 193–204. [https://doi.org/10.1016/S0092-8674\(00\)80914-9](https://doi.org/10.1016/S0092-8674(00)80914-9).
- Grzesik, W. J., and P. G. Robey. 1994. "Bone Matrix RGD Glycoproteins: Immunolocalization and Interaction with Human Primary Osteoblastic Bone Cells in Vitro." *Journal of Bone and Mineral Research: The Official Journal of the American Society for Bone and Mineral Research* 9 (4): 487–96. <https://doi.org/10.1002/jbmr.5650090408>.
- Gupta, Satish Kumar, Yiwei Li, and Ming Guo. 2019. "Anisotropic Mechanics and Dynamics of a Living Mammalian Cytoplasm." *Soft Matter* 15 (2): 190–99. <https://doi.org/10.1039/C8SM01708E>.
- Haehling, Stephan von, John E. Morley, and Stefan D. Anker. 2010. "An Overview of Sarcopenia: Facts and Numbers on Prevalence and Clinical Impact." *Journal of Cachexia, Sarcopenia and Muscle* 1 (2): 129–33. <https://doi.org/10.1007/s13539-010-0014-2>.
- Han, Li-Hsin, Janice H. Lai, Stephanie Yu, and Fan Yang. 2013. "Dynamic Tissue Engineering Scaffolds with Stimuli-Responsive Macroporosity Formation." *Biomaterials* 34(17):4251-58. <https://doi.org/10.1016/j.biomaterials.2013.02.051>.
- Harris, A. J., M. J. Duxson, R. B. Fitzsimons, and F. Rieger. 1989. "Myonuclear Birthdates Distinguish the Origins of Primary and Secondary Myotubes in Embryonic Mammalian Skeletal Muscles." *Development* 107 (4): 771–784.
- He, Qian, Takaharu Okajima, Hiroaki Onoe, Agus Subagyo, Kazuhisa Sueoka, and Kaori Kuribayashi-Shigetomi. 2018. "Origami-Based Self-Folding of Co-Cultured NIH/3T3 and HepG2 Cells into 3D Microstructures." *Scientific Reports* 8 (1): 4556. <https://doi.org/10.1038/s41598-018-22598-x>.
- Hegemann, Peter, and Andreas Möglich. 2011. "Channelrhodopsin Engineering and Exploration of New Optogenetic Tools." *Nature Methods* 8 (1): 39–42. <https://doi.org/10.1038/nmeth.f.327>.
- Heher, Philipp, Babette Maleiner, Johanna Prüller, Andreas Herbert Teuschl, Josef Kollmitzer, Xavier Monforte, Susanne Wolbank, Heinz Redl, Dominik Rünzler, and Christiane Fuchs. 2015. "A Novel Bioreactor for the Generation of Highly

- Aligned 3D Skeletal Muscle-like Constructs through Orientation of Fibrin via Application of Static Strain.” *Acta Biomaterialia* 24 (September): 251–65. <https://doi.org/10.1016/j.actbio.2015.06.033>.
- Hill, Elliott, Tanyarut Boonthekul, and David J. Mooney. 2006. “Designing Scaffolds to Enhance Transplanted Myoblast Survival and Migration.” *Tissue Engineering* 12 (5): 1295–1304. <https://doi.org/10.1089/ten.2006.12.1295>.
- Hindi, Lubna, Joseph D. McMillan, Dil Afroze, Sajedah M. Hindi, and Ashok Kumar. 2017. “Isolation, Culturing, and Differentiation of Primary Myoblasts from Skeletal Muscle of Adult Mice.” *Bio-Protocol* 7 (9). <https://doi.org/10.21769/BioProtoc.2248>.
- Hollnagel, Angela, Christine Grund, Werner W. Franke, and Hans-Henning Arnold. 2002. “The Cell Adhesion Molecule M-Cadherin Is Not Essential for Muscle Development and Regeneration.” *Molecular and Cellular Biology* 22 (13): 4760–70. <https://doi.org/10.1128/MCB.22.13.4760-4770.2002>.
- Horsley, Valerie, Katie M. Jansen, Stephen T. Mills, and Grace K. Pavlath. 2003. “IL-4 Acts as a Myoblast Recruitment Factor during Mammalian Muscle Growth.” *Cell* 113 (4): 483–94.
- Hosseini, Vahid, Samad Ahadian, Serge Ostrovidov, Gulden Camci-Unal, Song Chen, Hirokazu Kaji, Murugan Ramalingam, and Ali Khademhosseini. 2012. “Engineered Contractile Skeletal Muscle Tissue on a Microgrooved Methacrylated Gelatin Substrate.” *Tissue Engineering. Part A* 18 (23–24): 2453–65. <https://doi.org/10.1089/ten.tea.2012.0181>.
- Huang, Ngan F, Randall J Lee, and Song Li. 2010. “Engineering of Aligned Skeletal Muscle by Micropatterning.” *American Journal of Translational Research* 2 (1): 43–55.
- Huang, Yen-Chih, Robert G. Dennis, and Keith Baar. 2006. “Cultured Slow vs. Fast Skeletal Muscle Cells Differ in Physiology and Responsiveness to Stimulation.” *American Journal of Physiology. Cell Physiology* 291 (1): C11-17. <https://doi.org/10.1152/ajpcell.00366.2005>.
- Hussaini, H. M., N. A. Rahman, R. A. Rahman, G. M. Nor, S. M. Ai Idrus, and R. Ramli. 2007. “Maxillofacial Trauma with Emphasis on Soft-Tissue Injuries in Malaysia.” *International Journal of Oral and Maxillofacial Surgery* 36 (9): 797–801. <https://doi.org/10.1016/j.ijom.2007.04.004>.



- Ito, Akira, Hideaki Jitsunobu, Yoshinori Kawabe, and Masamichi Kamihira. 2007. "Construction of Heterotypic Cell Sheets by Magnetic Force-Based 3-D Coculture of HepG2 and NIH3T3 Cells." *Journal of Bioscience and Bioengineering* 104 (5): 371–78. <https://doi.org/10.1263/jbb.104.371>.
- Jacquemin, V, D Furling, A Bigot, G. S Butler-Browne, and V Mouly. 2004. "IGF-1 Induces Human Myotube Hypertrophy by Increasing Cell Recruitment." *Experimental Cell Research* 299 (1): 148–58. <https://doi.org/10.1016/j.yexcr.2004.05.023>.
- Jana, Soumen, and Miqin Zhang. 2013. "Fabrication of 3D Aligned Nanofibrous Tubes by Direct Electrospinning." *Journal of Materials Chemistry B* 1 (20): 2575–81. <https://doi.org/10.1039/C3TB20197J>.
- Jankowski, R. J., B. M. Deasy, and J. Huard. 2002. "Muscle-Derived Stem Cells." *Gene Therapy* 9 (10): 642.
- Järvinen, Tero AH, Markku Järvinen, and Hannu Kalimo. 2014. "Regeneration of Injured Skeletal Muscle after the Injury." *Muscles, Ligaments and Tendons Journal* 3 (4): 337–45.
- Jiwlawat, Nunnapas, Eileen M. Lynch, Brett N. Napiwocki, Alana Stempien, Randolph S. Ashton, Timothy J Kamp, Wendy C. Crone, and Masatoshi Suzuki. 2019. "Micropatterned Substrates with Physiological Stiffness Promote Cell Maturation and Pompe Disease Phenotype in Human Induced Pluripotent Stem Cell-derived Skeletal Myocytes." *Biotechnology and Bioengineering*, May, bit.27075. <https://doi.org/10.1002/bit.27075>.
- Jones, Julia M., Darren J. Player, Neil R. W. Martin, Andrew J. Capel, Mark P. Lewis, and Vivek Mudera. 2018. "An Assessment of Myotube Morphology, Matrix Deformation, and Myogenic mRNA Expression in Custom-Built and Commercially Available Engineered Muscle Chamber Configurations." *Frontiers in Physiology* 9. <https://doi.org/10.3389/fphys.2018.00483>.
- Juhas, Mark, and Nenad Bursac. 2013. "Engineering Skeletal Muscle Repair." *Current Opinion in Biotechnology* 24 (5): 880–86. <https://doi.org/10.1016/j.copbio.2013.04.013>.
- Junkin, Michael, Siu Ling Leung, Samantha Whitman, Carol C. Gregorio, and Pak Kin Wong. 2011. "Cellular Self-Organization by Autocatalytic Alignment Feedback." *Journal of Cell Science* 124 (24): 4213–20. <https://doi.org/10.1242/jcs.088898>.

- Junkin, Michael, Siu Ling Leung, Yongliang Yang, Yi Lu, Justin Volmering, and Pak Kin Wong. 2011. "Plasma Lithography Surface Patterning for Creation of Cell Networks." *Journal of Visualized Experiments*, no. 52 (June). <https://doi.org/10.3791/3115>.
- K, Chandramohan, and Boben Thomas. 2018. "Cancer Trends and Burden in India." *The Lancet Oncology* 19 (12): e663. [https://doi.org/10.1016/S1470-2045\(18\)30839-8](https://doi.org/10.1016/S1470-2045(18)30839-8).
- Kahl, Christina R., and Anthony R. Means. 2003. "Regulation of Cell Cycle Progression by Calcium/Calmodulin-Dependent Pathways." *Endocrine Reviews* 24 (6): 719–36. <https://doi.org/10.1210/er.2003-0008>.
- Kalyani, Rita Rastogi, Mark Corriere, and Luigi Ferrucci. 2014. "Age-Related and Disease-Related Muscle Loss: The Effect of Diabetes, Obesity, and Other Diseases." *The Lancet. Diabetes & Endocrinology* 2 (10): 819–29. [https://doi.org/10.1016/S2213-8587\(14\)70034-8](https://doi.org/10.1016/S2213-8587(14)70034-8).
- Kam, L.C., K. Shen, and M.L. Dustin. 2013. "MICRO- AND NANOSCALE ENGINEERING OF CELL SIGNALING." *Annual Review of Biomedical Engineering* 15: 305–26. <https://doi.org/10.1146/annurev-bioeng-071811-150050>.
- Kang, Hyun-Wook, Sang Jin Lee, In Kap Ko, Carlos Kengla, James J Yoo, and Anthony Atala. 2016a. "A 3D Bioprinting System to Produce Human-Scale Tissue Constructs with Structural Integrity." *Nature Biotechnology* 34 (February): 312.
- Kapałczyńska, Marta, Tomasz Kolenda, Weronika Przybyła, Maria Zajączkowska, Anna Teresiak, Violetta Filas, Matthew Ibbs, Renata Bliźniak, Łukasz Łuczewski, and Katarzyna Lamperska. 2016. "2D and 3D Cell Cultures – a Comparison of Different Types of Cancer Cell Cultures." *Archives of Medical Science*. <https://doi.org/10.5114/aoms.2016.63743>.
- Karp, Gerald. 2009. *Cell and Molecular Biology: Concepts and Experiments*. John Wiley & Sons.
- Ker, Elmer D. F., Amrinder S. Nain, Lee E. Weiss, Ji Wang, Joseph Suhan, Cristina H. Amon, and Phil G. Campbell. 2011. "Bioprinting of Growth Factors onto Aligned Sub-Micron Fibrous Scaffolds for Simultaneous Control of Cell Differentiation and Alignment." *Biomaterials* 32 (32): 8097–8107. <https://doi.org/10.1016/j.biomaterials.2011.07.025>.
- Khodabukus, Alastair, and Keith Baar. 2012. "Defined Electrical Stimulation Emphasizing Excitability for the Development and Testing of Engineered Skeletal

- Muscle.” *Tissue Engineering. Part C, Methods* 18 (5): 349–57. <https://doi.org/10.1089/ten.TEC.2011.0364>.
- Khodabukus, Alastair, Leslie M. Baehr, Sue C. Bodine, and Keith Baar. 2015. “Role of Contraction Duration in Inducing Fast-to-Slow Contractile and Metabolic Protein and Functional Changes in Engineered Muscle.” *Journal of Cellular Physiology* 230 (10): 2489–97. <https://doi.org/10.1002/jcp.24985>.
- Kim, Hae-Won, Hyoun-Ee Kim, and Vehid Salih. 2005. “Stimulation of Osteoblast Responses to Biomimetic Nanocomposites of Gelatin–Hydroxyapatite for Tissue Engineering Scaffolds.” *Biomaterials* 26 (25): 5221–30.
- Kim, Ji Hyun, Young-Joon Seol, In Kap Ko, Hyun-Wook Kang, Young Koo Lee, James J. Yoo, Anthony Atala, and Sang Jin Lee. 2018. “3D Bioprinted Human Skeletal Muscle Constructs for Muscle Function Restoration.” *Scientific Reports* 8 (1): 12307. <https://doi.org/10.1038/s41598-018-29968-5>.
- Kim, John T., Benjamin M. Kasukonis, Lemuel A. Brown, Tyrone A. Washington, and Jeffrey C. Wolchok. 2016. “Recovery from Volumetric Muscle Loss Injury: A Comparison between Young and Aged Rats.” *Experimental Gerontology* 83 (October): 37–46. <https://doi.org/10.1016/j.exger.2016.07.008>.
- Kim, Min-Cheol, Devin M. Neal, Roger D. Kamm, and H. Harry Asada. 2013. “Dynamic Modeling of Cell Migration and Spreading Behaviors on Fibronectin Coated Planar Substrates and Micropatterned Geometries.” *PLoS Computational Biology* 9 (2). <https://doi.org/10.1371/journal.pcbi.1002926>.
- Kim, Sangjoon, Khurts Shilagardi, Shiliang Zhang, Sabrina N. Hong, Kristin L. Sens, Jinyan Bo, Guillermo A. Gonzalez, and Elizabeth H. Chen. 2007. “A Critical Function for the Actin Cytoskeleton in Targeted Exocytosis of Prefusion Vesicles during Myoblast Fusion.” *Developmental Cell* 12 (4): 571–86. <https://doi.org/10.1016/j.devcel.2007.02.019>.
- Kim, WonJin, Minseong Kim, and Geun Hyung Kim. 2018. “3D-Printed Biomimetic Scaffold Simulating Microfibril Muscle Structure.” *Advanced Functional Materials* 28 (26): 1800405. <https://doi.org/10.1002/adfm.201800405>.
- Klebuc, Michael, and Zachary Menn. 2013. “Muscle Flaps and Their Role in Limb Salvage.” *Methodist DeBakey Cardiovascular Journal* 9 (2): 95–99.
- Klumpp, Dorothee, Raymund E Horch, Ulrich Kneser, and Justus P Beier. 2010. “Engineering Skeletal Muscle Tissue – New Perspectives in Vitro and in Vivo.”

- Journal of Cellular and Molecular Medicine* 14 (11): 2622–29.  
<https://doi.org/10.1111/j.1582-4934.2010.01183.x>.
- Knight, Meghan B., Nancy K. Drew, Linda A. McCarthy, and Anna Grosberg. 2016. “Emergent Global Contractile Force in Cardiac Tissues.” *Biophysical Journal* 110 (7): 1615–24. <https://doi.org/10.1016/j.bpj.2016.03.003>.
- Knudsen, Karen A., and Alan F. Horwitz. 1977. “Tandem Events in Myoblast Fusion.” *Developmental Biology* 58 (2): 328–38. [https://doi.org/10.1016/0012-1606\(77\)90095-1](https://doi.org/10.1016/0012-1606(77)90095-1).
- Ko, Eunkyung, Seung Jung Yu, Gelson J. Pagan-Diaz, Ziad Mahmassani, Marni D. Boppart, Sung Gap Im, Rashid Bashir, and Hyunjoon Kong. 2019. “Matrix Topography Regulates Synaptic Transmission at the Neuromuscular Junction.” *Advanced Science* 6 (6). <https://doi.org/10.1002/advs.201801521>.
- Koch, K. S., and H. L. Leffert. 1979. “Increased Sodium Ion Influx Is Necessary to Initiate Rat Hepatocyte Proliferation.” *Cell* 18 (1): 153–63.
- Koning, Merel, Martin C. Harmsen, Marja J. A. van Luyn, and Paul M. N. Werker. 2009. “Current Opportunities and Challenges in Skeletal Muscle Tissue Engineering.” *Journal of Tissue Engineering and Regenerative Medicine* 3 (6): 407–15. <https://doi.org/10.1002/term.190>.
- Krebs, Edwin G. 1989. “Role of the Cyclic AMP—Dependent Protein Kinase in Signal Transduction.” *JAMA* 262 (13): 1815–18. <https://doi.org/10.1001/jama.1989.03430130091040>.
- Krebs, Jean M., and Richard M. Denney. 1997. “Effect of Atrophy and Contractions on Myogenin mRNA Concentration in Chick and Rat Myoblast Omega Muscle Cells.” *In Vitro Cellular & Developmental Biology - Animal* 33 (3): 187–94. <https://doi.org/10.1007/s11626-997-0140-0>.
- Kuang, Shihuan, Sophie B. Chargé, Patrick Seale, Michael Huh, and Michael A. Rudnicki. 2006. “Distinct Roles for Pax7 and Pax3 in Adult Regenerative Myogenesis.” *The Journal of Cell Biology* 172 (1): 103–13. <https://doi.org/10.1083/jcb.200508001>.
- Kuang, Shihuan, Kazuki Kuroda, Fabien Le Grand, and Michael A. Rudnicki. 2007. “Asymmetric Self-Renewal and Commitment of Satellite Stem Cells in Muscle.” *Cell* 129 (5): 999–1010. <https://doi.org/10.1016/j.cell.2007.03.044>.
- Kumar, Pravir, Dhiraj Kumar, Saurabh Kumar Jha, Niraj Kumar Jha, and Rashmi K. Ambasta. 2016. “Chapter Three - Ion Channels in Neurological Disorders.” In

- Advances in Protein Chemistry and Structural Biology*, edited by Rossen Donev, 103:97–136. Ion Channels as Therapeutic Targets, Part A. Academic Press. <https://doi.org/10.1016/bs.apcsb.2015.10.006>.
- Kuraitis, D., P. Zhang, Y. Zhang, D. T. Padavan, K. McEwan, T. Sofrenovic, D. McKee, et al. 2011. “A Stromal Cell-Derived Factor-1 Releasing Matrix Enhances the Progenitor Cell Response and Blood Vessel Growth in Ischaemic Skeletal Muscle.” *European Cells & Materials* 22 (September): 109–23.
- Kwee, Brian J, and David J Mooney. 2017. “Biomaterials for Skeletal Muscle Tissue Engineering.” *Current Opinion in Biotechnology* 47 (October): 16–22. <https://doi.org/10.1016/j.copbio.2017.05.003>.
- Lam, Mai T., Yen-Chih Huang, Ravi K. Birla, and Shuichi Takayama. 2009. “Microfeature Guided Skeletal Muscle Tissue Engineering for Highly Organized 3-Dimensional Free-Standing Constructs.” *Biomaterials* 30 (6): 1150–55. <https://doi.org/10.1016/j.biomaterials.2008.11.014>.
- Lang, F., M. Föllner, K. S. Lang, P. A. Lang, M. Ritter, E. Gulbins, A. Vereninov, and S. M. Huber. 2005. “Ion Channels in Cell Proliferation and Apoptotic Cell Death.” *The Journal of Membrane Biology* 205 (3): 147–57. <https://doi.org/10.1007/s00232-005-0780-5>.
- Langer, R., and J. P. Vacanti. 1993. “Tissue Engineering.” *Science (New York, N.Y.)* 260 (5110): 920–26.
- Langhammer, Christopher G., Melinda K. Kutzing, Vincent Luo, Jeffrey D. Zahn, and Bonnie L. Firestein. 2013. “A Topographically Modified Substrate-Embedded MEA for Directed Myotube Formation at Electrode Contact Sites.” *Annals of Biomedical Engineering* 41 (2): 408–20. <https://doi.org/10.1007/s10439-012-0647-8>.
- Lanza, Robert, Robert Langer, and Joseph P. Vacanti. 2011. *Principles of Tissue Engineering*. Academic press.
- Le Grand, Fabien, and Michael A Rudnicki. 2007. “Skeletal Muscle Satellite Cells and Adult Myogenesis.” *Current Opinion in Cell Biology* 19 (6): 628–33. <https://doi.org/10.1016/j.ceb.2007.09.012>.
- Lepper, Christoph, Terence A. Partridge, and Chen-Ming Fan. 2011. “An Absolute Requirement for Pax7-Positive Satellite Cells in Acute Injury-Induced Skeletal Muscle Regeneration.” *Development (Cambridge, England)* 138 (17): 3639–46. <https://doi.org/10.1242/dev.067595>.

- Li, Jie, Ting Guan, Chenjun Hao, Lihua Li, and Yu Zhang. 2015. "Effects of Self-Assembled Monolayers with Different Chemical Groups on Ovarian Cancer Cell Line Behavior In Vitro." Research article. *Journal of Chemistry*. 2015. <https://doi.org/10.1155/2015/784626>.
- Li, Li, Jumin Zhou, Guy James, Robin Heller-Harrison, Michael P. Czech, and Eric N. Olson. 1992. "FGF Inactivates Myogenic Helix-Loop-Helix Proteins through Phosphorylation of a Conserved Protein Kinase C Site in Their DNA-Binding Domains." *Cell* 71 (7): 1181–94. [https://doi.org/10.1016/S0092-8674\(05\)80066-2](https://doi.org/10.1016/S0092-8674(05)80066-2).
- Lin, Chih-Hung, Yu-Te Lin, Jiun-Ting Yeh, and Chien-Tzung Chen. 2007. "Free Functioning Muscle Transfer for Lower Extremity Posttraumatic Composite Structure and Functional Defect." *Plastic and Reconstructive Surgery* 119 (7): 2118–26. <https://doi.org/10.1097/01.prs.0000260595.85557.41>.
- Lin, John Y., Michael Z. Lin, Paul Steinbach, and Roger Y. Tsien. 2009. "Characterization of Engineered Channelrhodopsin Variants with Improved Properties and Kinetics." *Biophysical Journal* 96 (5): 1803–14. <https://doi.org/10.1016/j.bpj.2008.11.034>.
- Lin, Meng-Hsien, Chi-Fan Chen, Hung-Wei Shiu, Chia-Hao Chen, and Shangjr Gwo. 2009. "Multilength-Scale Chemical Patterning of Self-Assembled Monolayers by Spatially Controlled Plasma Exposure: Nanometer to Centimeter Range." *Journal of the American Chemical Society* 131 (31): 10984–91. <https://doi.org/10.1021/ja901619h>.
- Lipomi, D.J., R.V. Martinez, L. Cademartiri, and G.M. Whitesides. 2012. "Soft Lithographic Approaches to Nanofabrication." In *Polymer Science: A Comprehensive Reference*, 211–31. Elsevier. <https://doi.org/10.1016/B978-0-444-53349-4.00180-1>.
- Liu, Dong, Brian L. Black, and Rik Derynck. 2001. "TGF- $\beta$  Inhibits Muscle Differentiation through Functional Repression of Myogenic Transcription Factors by Smad3." *Genes & Development* 15 (22): 2950–66. <https://doi.org/10.1101/gad.925901>.
- Liu, Gang, Feilim Mac Gabhann, and Aleksander S. Popel. 2012. "Effects of Fiber Type and Size on the Heterogeneity of Oxygen Distribution in Exercising Skeletal Muscle." *PLOS ONE* 7 (9): e44375. <https://doi.org/10.1371/journal.pone.0044375>.

- Liu, Yewei, and Martin F. Schneider. 2014. “FGF2 Activates TRPC and Ca<sup>2+</sup> Signaling Leading to Satellite Cell Activation.” *Frontiers in Physiology* 5 (February). <https://doi.org/10.3389/fphys.2014.00038>.
- Loh, Qiu Li, and Cleo Choong. 2013. “Three-Dimensional Scaffolds for Tissue Engineering Applications: Role of Porosity and Pore Size.” *Tissue Engineering. Part B, Reviews* 19 (6): 485–502. <https://doi.org/10.1089/ten.TEB.2012.0437>.
- Lorenzon, P., A. Giovannelli, D. Ragozzino, F. Eusebi, and F. Ruzzier. 1997. “Spontaneous and Repetitive Calcium Transients in C2C12 Mouse Myotubes during in Vitro Myogenesis.” *The European Journal of Neuroscience* 9 (4): 800–808.
- Luo, Baiwen, Lingling Tian, Nuan Chen, Seeram Ramakrishna, Nitish Thakor, and In Hong Yang. 2018. “Electrospun Nanofibers Facilitate Better Alignment, Differentiation, and Long-Term Culture in an in Vitro Model of the Neuromuscular Junction (NMJ).” *Biomaterials Science* 6 (12): 3262–72. <https://doi.org/10.1039/c8bm00720a>.
- Ma, Machingal, Corona Bt, Walters Tj, Kesireddy V, Koval Cn, Dannahower A, Zhao W, Yoo Jj, and Christ Gj. 2011. “A Tissue-Engineered Muscle Repair Construct for Functional Restoration of an Irrecoverable Muscle Injury in a Murine Model.” *Tissue Engineering. Part A* 17 (17–18): 2291–2303. <https://doi.org/10.1089/ten.TEA.2010.0682>.
- Madden, Luran, Mark Juhas, William E. Kraus, George A. Truskey, and Nenad Bursac. 2015. “Bioengineered Human Myobundles Mimic Clinical Responses of Skeletal Muscle to Drugs.” *ELife* 4 (January): e04885. <https://doi.org/10.7554/eLife.04885>.
- Maleiner, Babette, Janine Tomasch, Philipp Heher, Oliver Spadiut, Dominik Rünzler, and Christiane Fuchs. 2018. “The Importance of Biophysical and Biochemical Stimuli in Dynamic Skeletal Muscle Models.” *Frontiers in Physiology* 9. <https://doi.org/10.3389/fphys.2018.01130>.
- Marques-Almeida, Teresa, Vanessa F. Cardoso, Sylvie Ribeiro, Francisco M. Gama, Clarisse Ribeiro, and Senentxu Lanceros-Mendez. 2019. “Tuning Myoblast and Preosteoblast Cell Adhesion Site, Orientation, and Elongation through Electroactive Micropatterned Scaffolds.” *ACS Applied Bio Materials* 2 (4): 1591–1602. <https://doi.org/10.1021/acsabm.9b00020>.

- Matsakas, Antonios, Anthony Otto, Mohamed I Elashry, Susan C Brown, and Ketan Patel. 2010. "Altered Primary and Secondary Myogenesis in the Myostatin-Null Mouse" 13 (6): 12. <https://doi.org/10.1089/rej.2010.1065>.
- Matsumoto, Takuya, Jun-Ichi Sasaki, Eben Alsberg, Hiroshi Egusa, Hirofumi Yatani, and Taiji Sohmura. 2007. "Three-Dimensional Cell and Tissue Patterning in a Strained Fibrin Gel System." *PLoS ONE* 2 (11). <https://doi.org/10.1371/journal.pone.0001211>.
- Mauro, A. 1961. "Satellite Cell of Skeletal Muscle Fibers." *The Journal of Biophysical and Biochemical Cytology* 9 (February): 493–95.
- Mehrban, Nazia, Gui Zhen Teoh, and Martin Anthony Birchall. 2016. "3D Bioprinting for Tissue Engineering: Stem Cells in Hydrogels." *International Journal of Bioprinting* 2 (1): 6–19. <https://doi.org/10.18063/IJB.2016.01.006>.
- Messina, Graziella, and Giulio Cossu. 2009. "The Origin of Embryonic and Fetal Myoblasts: A Role of Pax3 and Pax7." *Genes & Development* 23 (8): 902–5. <https://doi.org/10.1101/gad.1797009>.
- Metzger, Thomas, Vincent Gache, Mu Xu, Bruno Cadot, Eric S. Folker, Brian E. Richardson, Edgar R. Gomes, and Mary K. Baylies. 2012. "MAP and Kinesin Dependent Nuclear Positioning Is Required for Skeletal Muscle Function." *Nature* 484 (7392): 120–24. <https://doi.org/10.1038/nature10914>.
- Morimoto, Yuya, Hiroaki Onoe, and Shoji Takeuchi. 2018. "Biohybrid Robot Powered by an Antagonistic Pair of Skeletal Muscle Tissues." *Science Robotics* 3 (18): eaat4440. <https://doi.org/10.1126/scirobotics.aat4440>.
- Mozetic, Pamela, Sara Maria Giannitelli, Manuele Gori, Marcella Trombetta, and Alberto Rainer. 2017. "Engineering Muscle Cell Alignment through 3D Bioprinting." *Journal of Biomedical Materials Research Part A* 105 (9): 2582–88. <https://doi.org/10.1002/jbm.a.36117>.
- Müller, Petra, Anne Langenbach, Alexander Kaminski, and Joachim Rychly. 2013. "Modulating the Actin Cytoskeleton Affects Mechanically Induced Signal Transduction and Differentiation in Mesenchymal Stem Cells." Edited by Laurent Kreplak. *PLoS ONE* 8 (7): e71283. <https://doi.org/10.1371/journal.pone.0071283>.
- Murphy, Sean V., and Anthony Atala. 2014. "3D Bioprinting of Tissues and Organs." *Nature Biotechnology* 32 (8): 773–85. <https://doi.org/10.1038/nbt.2958>.
- Nagel, Georg, Martin Brauner, Jana F. Liewald, Nona Adeishvili, Ernst Bamberg, and Alexander Gottschalk. 2005. "Light Activation of Channelrhodopsin-2 in



- Excitable Cells of *Caenorhabditis Elegans* Triggers Rapid Behavioral Responses.” *Current Biology* 15 (24): 2279–84. <https://doi.org/10.1016/j.cub.2005.11.032>.
- Nam, Ki-Hwan, Nima Jamilpour, Etienne Mfoumou, Fei-Yue Wang, Donna D. Zhang, and Pak Kin Wong. 2015. “Probing Mechanoregulation of Neuronal Differentiation by Plasma Lithography Patterned Elastomeric Substrates.” *Scientific Reports* 4 (1). <https://doi.org/10.1038/srep06965>.
- Nava, Michele M., Manuela T. Raimondi, and Riccardo Pietrabissa. 2012. “Controlling Self-Renewal and Differentiation of Stem Cells via Mechanical Cues.” *Journal of Biomedicine and Biotechnology* 2012: 1–12. <https://doi.org/10.1155/2012/797410>.
- Nava, Michele M., Manuela T. Raimondi, and Riccardo Pietrabissa. 2014. “Bio-Chemo-Mechanical Models for Nuclear Deformation in Adherent Eukaryotic Cells.” *Biomechanics and Modeling in Mechanobiology* 13 (5): 929–43. <https://doi.org/10.1007/s10237-014-0558-8>.
- Niemeyer, Barbara A., Laurence Mery, Christian Zawar, Arnt Suckow, Francisco Monje, Luis A. Pardo, Walter Stühmer, Veit Flockerzi, and Markus Hoth. 2001. “Ion Channels in Health and Disease.” *EMBO Reports* 2 (7): 568–73. <https://doi.org/10.1093/embo-reports/kve145>.
- Nikkhah, Mehdi, Faramarz Edalat, Sam Manoucheri, and Ali Khademhosseini. 2012. “Engineering Microscale Topographies to Control the Cell-Substrate Interface.” *Biomaterials* 33 (21): 5230–46. <https://doi.org/10.1016/j.biomaterials.2012.03.079>.
- Nowak, S. J., P. C. Nahirney, A.-K. Hadjantonakis, and M. K. Baylies. 2009. “Nap1-Mediated Actin Remodeling Is Essential for Mammalian Myoblast Fusion.” *Journal of Cell Science* 122 (18): 3282–93. <https://doi.org/10.1242/jcs.047597>.
- Nussinovitch, Udi, Rami Shinnawi, and Lior Gepstein. 2014. “Modulation of Cardiac Tissue Electrophysiological Properties with Light-Sensitive Proteins.” *Cardiovascular Research* 102 (1): 176–87. <https://doi.org/10.1093/cvr/cvu037>.
- Ohtake, Y. 2006. “Multifunctional Roles of MT1-MMP in Myofiber Formation and Morphostatic Maintenance of Skeletal Muscle.” *Journal of Cell Science* 119 (18): 3822–32. <https://doi.org/10.1242/jcs.03158>.
- Olguin, Hugo C., and Bradley B. Olwin. 2004. “Pax-7 up-Regulation Inhibits Myogenesis and Cell Cycle Progression in Satellite Cells: A Potential Mechanism for Self-

- Renewal.” *Developmental Biology* 275 (2): 375–88.  
<https://doi.org/10.1016/j.ydbio.2004.08.015>.
- Osaki, Tatsuya, Vivek Sivathanu, and Roger D. Kamm. 2018. “Crosstalk between Developing Vasculature and Optogenetically Engineered Skeletal Muscle Improves Muscle Contraction and Angiogenesis.” *Biomaterials* 156 (February): 65–76. <https://doi.org/10.1016/j.biomaterials.2017.11.041>.
- Ostrovidov, Serge, Vahid Hosseini, Samad Ahadian, Toshinori Fujie, Selvakumar Prakash Parthiban, Murugan Ramalingam, Hojae Bae, Hirokazu Kaji, and Ali Khademhosseini. 2014. “Skeletal Muscle Tissue Engineering: Methods to Form Skeletal Myotubes and Their Applications.” *Tissue Engineering. Part B, Reviews* 20 (5): 403–36. <https://doi.org/10.1089/ten.TEB.2013.0534>.
- Ostuni, Emanuele, Lin Yan, and George M. Whitesides. 1999. “The Interaction of Proteins and Cells with Self-Assembled Monolayers of Alkanethiolates on Gold and Silver.” *Colloids and Surfaces B: Biointerfaces* 15 (1): 3–30. [https://doi.org/10.1016/S0927-7765\(99\)00004-1](https://doi.org/10.1016/S0927-7765(99)00004-1).
- Ouyang, Liliang, Rui Yao, Xi Chen, Jie Na, and Wei Sun. 2015. “3D Printing of HEK 293FT Cell-Laden Hydrogel into Macroporous Constructs with High Cell Viability and Normal Biological Functions.” *Biofabrication* 7 (1): 015010. <https://doi.org/10.1088/1758-5090/7/1/015010>.
- Owens, Brett D., John F. Kragh, Joseph Macaitis, Steven J. Svoboda, and Joseph C. Wenke. 2007. “Characterization of Extremity Wounds in Operation Iraqi Freedom and Operation Enduring Freedom.” *Journal of Orthopaedic Trauma* 21 (4): 254–57. <https://doi.org/10.1097/BOT.0b013e31802f78fb>.
- Ozbolat, I. T., and Y. Yu. 2013. “Bioprinting Toward Organ Fabrication: Challenges and Future Trends.” *IEEE Transactions on Biomedical Engineering* 60 (3): 691–99. <https://doi.org/10.1109/TBME.2013.2243912>.
- Ozbolat, Ibrahim T., and Monika Hospodiuk. 2016. “Current Advances and Future Perspectives in Extrusion-Based Bioprinting.” *Biomaterials* 76 (January): 321–43. <https://doi.org/10.1016/j.biomaterials.2015.10.076>.
- Palmer, B. M., and R. Bizios. 1997. “Quantitative Characterization of Vascular Endothelial Cell Morphology and Orientation Using Fourier Transform Analysis.” *Journal of Biomechanical Engineering* 119 (2): 159–65. <https://doi.org/10.1115/1.2796075>.

- Panwar, Amit, and Lay Poh Tan. 2016. "Current Status of Bioinks for Micro-Extrusion-Based 3D Bioprinting." *Molecules* 21 (6): 685. <https://doi.org/10.3390/molecules21060685>.
- Park, Junggeon, Jang Hee Choi, Semin Kim, Inseok Jang, Sungho Jeong, and Jae Young Lee. 2019. "Micropatterned Conductive Hydrogels as Multifunctional Muscle-Mimicking Biomaterials: Graphene-Incorporated Hydrogels Directly Patterned with Femtosecond Laser Ablation." *Acta Biomaterialia*, July. <https://doi.org/10.1016/j.actbio.2019.07.044>.
- PASSAMANO, LUIGIA, ANTONELLA TAGLIA, ALBERTO PALLADINO, EMANUELA VIGGIANO, PAOLA D'AMBROSIO, MARIANNA SCUTIFERO, MARIA ROSARIA CECIO, et al. 2012. "Improvement of Survival in Duchenne Muscular Dystrophy: Retrospective Analysis of 835 Patients." *Acta Myologica* 31 (2): 121–25.
- Passey, S., N. Martin, D. Player, and M. P. Lewis. 2011. "Stretching Skeletal Muscle in Vitro: Does It Replicate in Vivo Physiology?" *Biotechnology Letters* 33 (8): 1513–21. <https://doi.org/10.1007/s10529-011-0610-z>.
- Pastrana, Erika. 2011. "Optogenetics: Controlling Cell Function with Light." *Nature Methods* 8 (1): 24–25. <https://doi.org/10.1038/nmeth.f.323>.
- Pati, Falguni, Dong-Heon Ha, Jinah Jang, Hyun Ho Han, Jong-Won Rhie, and Dong-Woo Cho. 2015. "Biomimetic 3D Tissue Printing for Soft Tissue Regeneration." *Biomaterials* 62 (Supplement C): 164–75. <https://doi.org/10.1016/j.biomaterials.2015.05.043>.
- Peckham, M. 2008. "Engineering a Multi-Nucleated Myotube, the Role of the Actin Cytoskeleton." *Journal of Microscopy* 231 (3): 486–93. <https://doi.org/10.1111/j.1365-2818.2008.02061.x>.
- Pei, Ying, Juan Yang, Pan Liu, Min Xu, Xianzheng Zhang, and Lina Zhang. 2013. "Fabrication, Properties and Bioapplications of Cellulose/Collagen Hydrolysate Composite Films." *Carbohydrate Polymers* 92 (2): 1752–60. <https://doi.org/10.1016/j.carbpol.2012.11.029>.
- Pennisi, Cristian Pablo, Christian Gammelgaard Olesen, Mark de Zee, John Rasmussen, and Vladimir Zachar. 2011. "Uniaxial Cyclic Strain Drives Assembly and Differentiation of Skeletal Myocytes." *Tissue Engineering Part A* 17 (19–20): 2543–50. <https://doi.org/10.1089/ten.tea.2011.0089>.

- Perniconi, Barbara, and Dario Coletti. 2014. "Skeletal Muscle Tissue Engineering: Best Bet or Black Beast?" *Striated Muscle Physiology* 5: 255. <https://doi.org/10.3389/fphys.2014.00255>.
- Piel, Matthieu, and Manuel Théry, eds. 2014. "Volumes in Series." In *Methods in Cell Biology*, 120:259–70. Academic Press. <https://doi.org/10.1016/B978-0-12-417136-7.09986-9>.
- Pinto, Francisco M., Cristina G. Ravina, Manuel Fernández-Sánchez, Manuel Gallardo-Castro, Antonio Cejudo-Román, and Luz Candenas. 2009. "Molecular and Functional Characterization of Voltage-Gated Sodium Channels in Human Sperm." *Reproductive Biology and Endocrinology* 7 (July): 71. <https://doi.org/10.1186/1477-7827-7-71>.
- Poenie, M., J. Alderton, R. Steinhardt, and R. Tsien. 1986. "Calcium Rises Abruptly and Briefly throughout the Cell at the Onset of Anaphase." *Science* 233 (4766): 886–89. <https://doi.org/10.1126/science.3755550>.
- Pollard, Thomas D., and John A. Cooper. 2009. "Actin, a Central Player in Cell Shape and Movement." *Science (New York, N.Y.)* 326 (5957): 1208–12. <https://doi.org/10.1126/science.1175862>.
- Powell, Courtney A., Beth L. Smiley, John Mills, and Herman H. Vandenburg. 2002. "Mechanical Stimulation Improves Tissue-Engineered Human Skeletal Muscle." *American Journal of Physiology - Cell Physiology* 283 (5): C1557–65. <https://doi.org/10.1152/ajpcell.00595.2001>.
- Powers, Scott K., Gordon S. Lynch, Kate T. Murphy, Michael B. Reid, and Inge Zijdwind. 2016. "Disease-Induced Skeletal Muscle Atrophy and Fatigue." *Medicine and Science in Sports and Exercise* 48 (11): 2307–19. <https://doi.org/10.1249/MSS.0000000000000975>.
- Qazi, Taimoor H., David J. Mooney, Matthias Pumberger, Sven Geißler, and Georg N. Duda. 2015. "Biomaterials Based Strategies for Skeletal Muscle Tissue Engineering: Existing Technologies and Future Trends." *Biomaterials* 53 (June): 502–21. <https://doi.org/10.1016/j.biomaterials.2015.02.110>.
- Radice, Glenn L., Helen Rayburn, Hiroaki Matsunami, Karen A. Knudsen, Masatoshi Takeichi, and Richard O. Hynes. 1997. "Developmental Defects in Mouse Embryos Lacking N-Cadherin." *Developmental Biology* 181 (1): 64–78. <https://doi.org/10.1006/dbio.1996.8443>.

- Raman, Ritu, Caroline Cvetkovic, Sebastien G. M. Uzel, Randall J. Platt, Parijat Sengupta, Roger D. Kamm, and Rashid Bashir. 2016. "Optogenetic Skeletal Muscle-Powered Adaptive Biological Machines." *Proceedings of the National Academy of Sciences* 113 (13): 3497–3502. <https://doi.org/10.1073/pnas.1516139113>.
- Raman, Ritu, Lauren Grant, Yongbeom Seo, Caroline Cvetkovic, Michael Gapinske, Alexandra Palasz, Howard Dabbous, Hyunjoon Kong, Pablo Perez Pinera, and Rashid Bashir. 2017. "Damage, Healing, and Remodeling in Optogenetic Skeletal Muscle Bioactuators." *Advanced Healthcare Materials* 6 (12): 1700030. <https://doi.org/10.1002/adhm.201700030>.
- Ramadass, Satiesh Kumar, Sathiamurthi Perumal, Arun Gopinath, Anuya Nisal, Saravanan Subramanian, and Balaraman Madhan. 2014. "Sol–Gel Assisted Fabrication of Collagen Hydrolysate Composite Scaffold: A Novel Therapeutic Alternative to the Traditional Collagen Scaffold." *ACS Applied Materials & Interfaces* 6 (17): 15015–25. <https://doi.org/10.1021/am502948g>.
- Ramírez, Ana, Alma Yolanda Vázquez-Sánchez, Natalia Carrión-Robalino, and Javier Camacho. 2016. "Ion Channels and Oxidative Stress as a Potential Link for the Diagnosis or Treatment of Liver Diseases." *Oxidative Medicine and Cellular Longevity* 2016. <https://doi.org/10.1155/2016/3928714>.
- Rana, Kuldeepsinh, Benjamin J. Timmer, and Keith B. Neeves. 2014. "A Combined Microfluidic-Microstencil Method for Patterning Biomolecules and Cells." *Biomicrofluidics* 8 (5): 056502. <https://doi.org/10.1063/1.4896231>.
- Rao, Nikhil, Samantha Evans, Danique Stewart, Katrina H. Spencer, Farah Sheikh, Elliot E. Hui, and Karen L. Christman. 2013. "Fibroblasts Influence Muscle Progenitor Differentiation and Alignment in Contact Independent and Dependent Manners in Organized Co-Culture Devices." *Biomedical Microdevices* 15 (1): 161–69. <https://doi.org/10.1007/s10544-012-9709-9>.
- Rao, Sunkara S., and D. Stave Kohtz. 1995. "Positive and Negative Regulation of D-Type Cyclin Expression in Skeletal Myoblasts by Basic Fibroblast Growth Factor and Transforming Growth Factor  $\beta$  A ROLE FOR CYCLIN D1 IN CONTROL OF MYOBLAST DIFFERENTIATION." *Journal of Biological Chemistry* 270 (8): 4093–4100. <https://doi.org/10.1074/jbc.270.8.4093>.

- Rasmussen, Colin D., and Anthony R. Means. 1989. "The Presence of Parvalbumin in a Nonmuscle Cell Line Attenuates Progression through Mitosis." *Molecular Endocrinology* 3 (3): 588–96. <https://doi.org/10.1210/mend-3-3-588>.
- Rebbeck, Robyn T., Yamuna Karunasekara, Philip G. Board, Nicole A. Beard, Marco G. Casarotto, and Angela F. Dulhunty. 2014. "Skeletal Muscle Excitation-Contraction Coupling: Who Are the Dancing Partners?" *The International Journal of Biochemistry & Cell Biology* 48 (March): 28–38. <https://doi.org/10.1016/j.biocel.2013.12.001>.
- Restrepo-Angulo, Iván, Andrea De Vizcaya-Ruiz, and Javier Camacho. 2010. "Ion Channels in Toxicology." *Journal of Applied Toxicology* 30 (6): 497–512. <https://doi.org/10.1002/jat.1556>.
- Rezakhaniha, R., A. Agianniotis, J. T. C. Schrauwen, A. Griffa, D. Sage, C. V. C. Bouten, F. N. van de Vosse, M. Unser, and N. Stergiopoulos. 2012. "Experimental Investigation of Collagen Waviness and Orientation in the Arterial Adventitia Using Confocal Laser Scanning Microscopy." *Biomechanics and Modeling in Mechanobiology* 11 (3–4): 461–73. <https://doi.org/10.1007/s10237-011-0325-z>.
- Riboldi, S. A., N. Sadr, L. Pignini, P. Neuenschwander, M. Simonet, P. Mognol, M. Sampaolesi, G. Cossu, and S. Mantero. 2008. "Skeletal Myogenesis on Highly Orientated Microfibrous Polyesterurethane Scaffolds." *Journal of Biomedical Materials Research. Part A* 84 (4): 1094–1101. <https://doi.org/10.1002/jbm.a.31534>.
- Rizzetto, Riccardo, Viviana Agus, Sara Pizzi, Jean-Francois Rolland, Lia Scarabottolo, Susanne Renhelt, Daniela Malan, et al. 2018. "Optogenetic Technologies Enable High Throughput Ion Channel Drug Discovery and Toxicity Screening." *Biophysical Journal* 114 (3): 489a. <https://doi.org/10.1016/j.bpj.2017.11.2681>.
- Rochlin, Kate, Shannon Yu, Sudipto Roy, and Mary K. Baylies. 2010. "Myoblast Fusion: When It Takes More to Make One." *Developmental Biology* 341 (1): 66–83. <https://doi.org/10.1016/j.ydbio.2009.10.024>.
- Rolli, Claudio G., Hidekazu Nakayama, Kazuo Yamaguchi, Joachim P. Spatz, Ralf Kemkemer, and Jun Nakanishi. 2012. "Switchable Adhesive Substrates: Revealing Geometry Dependence in Collective Cell Behavior." *Biomaterials* 33 (8): 2409–18. <https://doi.org/10.1016/j.biomaterials.2011.12.012>.
- Roman, Richard M., Kurt O. Bodily, Yu Wang, John R. Raymond, and J. Gregory Fitz. 1998. "Activation of Protein Kinase C $\alpha$  Couples Cell Volume to Membrane Cl<sup>-</sup>

- Permeability in HTC Hepatoma and Mz-ChA-1 Cholangiocarcinoma Cells.” *Hepatology* 28 (4): 1073–80. <https://doi.org/10.1002/hep.510280423>.
- Roman, William, and Edgar R. Gomes. 2018. “Nuclear Positioning in Skeletal Muscle.” *Seminars in Cell & Developmental Biology*, SI: Nuclear positioning, 82 (October): 51–56. <https://doi.org/10.1016/j.semcdb.2017.11.005>.
- Roman, William, João P. Martins, Filomena A. Carvalho, Raphael Voituriez, Jasmine V. G. Abella, Nuno C. Santos, Bruno Cadot, Michael Way, and Edgar R. Gomes. 2017. “Myofibril Contraction and Crosslinking Drive Nuclear Movement to the Periphery of Skeletal Muscle.” *Nature Cell Biology* 19 (10): 1189–1201. <https://doi.org/10.1038/ncb3605>.
- Romano, Paolo, Assunta Manniello, Ottavia Aresu, Massimiliano Armento, Michela Cesaro, and Barbara Parodi. 2009. “Cell Line Data Base: Structure and Recent Improvements towards Molecular Authentication of Human Cell Lines.” *Nucleic Acids Research* 37 (Database issue): D925–32. <https://doi.org/10.1093/nar/gkn730>.
- Rommel, Christian, Sue C. Bodine, Brian A. Clarke, Roni Rossman, Lorna Nunez, Trevor N. Stitt, George D. Yancopoulos, and David J. Glass. 2001. “Mediation of IGF-1-Induced Skeletal Myotube Hypertrophy by PI(3)K/Akt/MTOR and PI(3)K/Akt/GSK3 Pathways.” *Nature Cell Biology* 3 (11): 1009. <https://doi.org/10.1038/ncb1101-1009>.
- Rosen, Glenn D., Joshua R. Sanes, Rhonda LaChance, Jeanette M. Cunningham, Jesse Roman, and Douglas C. Dean. 1992. “Roles for the Integrin VLA-4 and Its Counter Receptor VCAM-1 in Myogenesis.” *Cell* 69 (7): 1107–19. [https://doi.org/10.1016/0092-8674\(92\)90633-N](https://doi.org/10.1016/0092-8674(92)90633-N).
- Rueden, Curtis T., Johannes Schindelin, Mark C. Hiner, Barry E. DeZonia, Alison E. Walter, Ellen T. Arena, and Kevin W. Eliceiri. 2017. “ImageJ2: ImageJ for the next Generation of Scientific Image Data.” *BMC Bioinformatics* 18 (1): 529. <https://doi.org/10.1186/s12859-017-1934-z>.
- Sakar, Mahmut Selman, Devin Neal, Thomas Boudou, Michael A. Borochin, Yinqing Li, Ron Weiss, Roger D. Kamm, Christopher S. Chen, and H. Harry Asada. 2012. “Formation and Optogenetic Control of Engineered 3D Skeletal Muscle Bioactuators.” *Lab on a Chip* 12 (23): 4976–85. <https://doi.org/10.1039/c2lc40338b>.

- Salomon, Johanna J., Stephan Spahn, Xiaohui Wang, Joachim Füllekrug, Carol A. Bertrand, and Marcus A. Mall. 2016. "Generation and Functional Characterization of Epithelial Cells with Stable Expression of SLC26A9 Cl<sup>-</sup> Channels." *American Journal of Physiology - Lung Cellular and Molecular Physiology* 310 (7): L593–602. <https://doi.org/10.1152/ajplung.00321.2015>.
- Sambasivan, Ramkumar, Roseline Yao, Adrien Kissenpfennig, Laetitia Van Wittenberghe, Andràs Paldi, Barbara Gayraud-Morel, Hind Guenou, Bernard Malissen, Shahragim Tajbakhsh, and Anne Galy. 2011. "Pax7-Expressing Satellite Cells Are Indispensable for Adult Skeletal Muscle Regeneration." *Development (Cambridge, England)* 138 (17): 3647–56. <https://doi.org/10.1242/dev.067587>.
- Sambrook, J., E. F. Fritsch, and T. Maniatis. 1989. "Molecular Cloning: A Laboratory Manual." *Molecular Cloning: A Laboratory Manual.*, no. Ed. 2. <https://www.cabdirect.org/cabdirect/abstract/19901616061>.
- Schindelin, Johannes, Ignacio Arganda-Carreras, Erwin Frise, Verena Kaynig, Mark Longair, Tobias Pietzsch, Stephan Preibisch, et al. 2012. "Fiji: An Open-Source Platform for Biological-Image Analysis." *Nature Methods* 9 (7): 676. <https://doi.org/10.1038/nmeth.2019>.
- Schwander, Martin, Marco Leu, Michael Stumm, Olivier M. Dorchies, Urs T. Rugg, Johannes Schittny, and Ulrich Müller. 2003. "B1 Integrins Regulate Myoblast Fusion and Sarcomere Assembly." *Developmental Cell* 4 (5): 673–85. [https://doi.org/10.1016/S1534-5807\(03\)00118-7](https://doi.org/10.1016/S1534-5807(03)00118-7).
- Schwarz, Ulrich S., and Ilka B. Bischofs. 2005. "Physical Determinants of Cell Organization in Soft Media." *Medical Engineering & Physics*, This issue contains a special section on Effects of Mechanical Forces Engineering Reactions at the Cellular Level, 27 (9): 763–72. <https://doi.org/10.1016/j.medengphy.2005.04.007>.
- Scott, John B., Catherine L. Ward, Benjamin T. Corona, Michael R. Deschenes, Benjamin S. Harrison, Justin M. Saul, and George J. Christ. 2017. "Achieving Acetylcholine Receptor Clustering in Tissue-Engineered Skeletal Muscle Constructs In Vitro through a Materials-Directed Agrin Delivery Approach." *Frontiers in Pharmacology* 7 (January). <https://doi.org/10.3389/fphar.2016.00508>.



- Seale, P., L. A. Sabourin, A. Girgis-Gabardo, A. Mansouri, P. Gruss, and M. A. Rudnicki. 2000. "Pax7 Is Required for the Specification of Myogenic Satellite Cells." *Cell* 102 (6): 777–86.
- Seale, Patrick, Luc A Sabourin, Adele Girgis-Gabardo, Ahmed Mansouri, Peter Gruss, and Michael A Rudnicki. 2000. "Pax7 Is Required for the Specification of Myogenic Satellite Cells." *Cell* 102 (6): 777–86. [https://doi.org/10.1016/S0092-8674\(00\)00066-0](https://doi.org/10.1016/S0092-8674(00)00066-0).
- Sebille, Stéphane, Oualid Ayad, Charles-Albert Chapotte-Baldacci, Christian Cognard, Patrick Bois, and Aurélien Chatelier. 2017. "Optogenetic Approach for Targeted Activation of Global Calcium Transients in Differentiated C2C12 Myotubes." *Scientific Reports* 7 (1): 11108. <https://doi.org/10.1038/s41598-017-11551-z>.
- Seo, Seog-Jin, In-Yong Kim, Yun-Jaie Choi, Toshihiro Akaike, and Chong-Su Cho. 2006. "Enhanced Liver Functions of Hepatocytes Cocultured with NIH 3T3 in the Alginate/Galactosylated Chitosan Scaffold." *Biomaterials* 27 (8): 1487–95. <https://doi.org/10.1016/j.biomaterials.2005.09.018>.
- Shahini, Aref, Debanik Choudhury, Mohammadnabi Asmani, Ruogang Zhao, Pedro Lei, and Stelios T. Andreadis. 2018. "NANOG Restores the Impaired Myogenic Differentiation Potential of Skeletal Myoblasts after Multiple Population Doublings." *Stem Cell Research* 26 (January): 55–66. <https://doi.org/10.1016/j.scr.2017.11.018>.
- Shahini, Aref, Kalyan Vydiam, Debanik Choudhury, Nika Rajabian, Thy Nguyen, Pedro Lei, and Stelios T. Andreadis. 2018. "Efficient and High Yield Isolation of Myoblasts from Skeletal Muscle." *Stem Cell Research* 30 (July): 122–29. <https://doi.org/10.1016/j.scr.2018.05.017>.
- Shandalov, Yulia, Dana Egozi, Jacob Koffler, Dekel Dado-Rosenfeld, David Ben-Shimol, Alina Freiman, Erez Shor, Aviva Kabala, and Shulamit Levenberg. 2014. "An Engineered Muscle Flap for Reconstruction of Large Soft Tissue Defects." *Proceedings of the National Academy of Sciences of the United States of America* 111 (16): 6010–15. <https://doi.org/10.1073/pnas.1402679111>.
- Sharpe, Ruben B. A., Dirk Burdinski, Jurriaan Huskens, Harold J. W. Zandvliet, David N. Reinhoudt, and Bene Poelsema. 2005. "Chemically Patterned Flat Stamps for Microcontact Printing." *Journal of the American Chemical Society* 127 (29): 10344–49. <https://doi.org/10.1021/ja052139l>.

- Sheehy, Sean P., Francesco Pasqualini, Anna Grosberg, Sung Jin Park, Yvonne Aratyn-Schaus, and Kevin Kit Parker. 2014. "Quality Metrics for Stem Cell-Derived Cardiac Myocytes." *Stem Cell Reports* 2 (3): 282–94. <https://doi.org/10.1016/j.stemcr.2014.01.015>.
- Shefer, Gabi, Gat Rauner, Zipora Yablonka-Reuveni, and Dafna Benayahu. 2010. "Reduced Satellite Cell Numbers and Myogenic Capacity in Aging Can Be Alleviated by Endurance Exercise." *PLOS ONE* 5 (10): e13307. <https://doi.org/10.1371/journal.pone.0013307>.
- Sherwood, Lauralee. 2011. *Fundamentals of Human Physiology*. Cengage Learning.
- Shilagardi, Khurts, Shuo Li, Fengbao Luo, Faiz Marikar, Rui Duan, Peng Jin, Ji Hoon Kim, Katherine Murnen, and Elizabeth H. Chen. 2013. "Actin-Propelled Invasive Membrane Protrusions Promote Fusogenic Protein Engagement during Cell-Cell Fusion." *Science (New York, N.Y.)* 340 (6130): 359–63. <https://doi.org/10.1126/science.1234781>.
- Shimaoka, Satoru, Toshikazu Nakamura, and Akira Ichihara. 1987. "Stimulation of Growth of Primary Cultured Adult Rat Hepatocytes without Growth Factors by Coculture with Nonparenchymal Liver Cells." *Experimental Cell Research* 172 (1): 228–42. [https://doi.org/10.1016/0014-4827\(87\)90109-1](https://doi.org/10.1016/0014-4827(87)90109-1).
- Shimizu, Kazunori, Hideaki Fujita, and Eiji Nagamori. 2010. "Micropatterning of Single Myotubes on a Thermoresponsive Culture Surface Using Elastic Stencil Membranes for Single-Cell Analysis." *Journal of Bioscience and Bioengineering* 109 (2): 174–78. <https://doi.org/10.1016/j.jbiosc.2009.07.016>.
- Simon, Felipe, Diego Varela, and Claudio Cabello-Verrugio. 2013. "Oxidative Stress-Modulated TRPM Ion Channels in Cell Dysfunction and Pathological Conditions in Humans." *Cellular Signalling* 25 (7): 1614–24. <https://doi.org/10.1016/j.cellsig.2013.03.023>.
- Smith, A. S. T., S. Passey, L. Greensmith, V. Mudera, and M. P. Lewis. 2012. "Characterization and Optimization of a Simple, Repeatable System for the Long Term in Vitro Culture of Aligned Myotubes in 3D." *Journal of Cellular Biochemistry* 113 (3): 1044–53. <https://doi.org/10.1002/jcb.23437>.
- Steinhardt, Richard A., and Janet Alderton. 1988. "Intracellular Free Calcium Rise Triggers Nuclear Envelope Breakdown in the Sea Urchin Embryo." *Nature* 332 (6162): 364–66. <https://doi.org/10.1038/332364a0>.

- Stern-Straeter, Jens, Frank Riedel, Gregor Bran, Karl Hörmann, and Ulrich Reinhart Goessler. 2007. "Advances in Skeletal Muscle Tissue Engineering." *In Vivo (Athens, Greece)* 21 (3): 435–44.
- Stiber, Jonathan A., and Paul B. Rosenberg. 2011. "The Role of Store-Operated Calcium Influx in Skeletal Muscle Signaling." *Cell Calcium, Ca<sup>2+</sup> signalling and gene regulation*, 49 (5): 341–49. <https://doi.org/10.1016/j.ceca.2010.11.012>.
- Subramanyam, Prakash, and Henry M. Colecraft. 2015. "Ion Channel Engineering: Perspectives and Strategies." *Journal of Molecular Biology, Understanding Functions and Mechanisms of Ion Channels*, 427 (1): 190–204. <https://doi.org/10.1016/j.jmb.2014.09.001>.
- Sun, JianGuo, Jian Tang, and JianDong Ding. 2009. "Cell Orientation on a Stripe-Micropatterned Surface." *Chinese Science Bulletin* 54 (18): 3154–59. <https://doi.org/10.1007/s11434-009-0240-1>.
- Syverud, Brian C., Keith W. VanDusen, and Lisa M. Larkin. 2016. "Growth Factors for Skeletal Muscle Tissue Engineering." *Cells, Tissues, Organs* 202 (3–4): 169–79. <https://doi.org/10.1159/000444671>.
- Tatsumi, Ryuichi, Xiaosong Liu, Antonio Pulido, Mark Morales, Tomowa Sakata, Sharon Dial, Akihito Hattori, Yoshihide Ikeuchi, and Ronald E. Allen. 2006. "Satellite Cell Activation in Stretched Skeletal Muscle and the Role of Nitric Oxide and Hepatocyte Growth Factor." *American Journal of Physiology. Cell Physiology* 290 (6): C1487-1494. <https://doi.org/10.1152/ajpcell.00513.2005>.
- Theadom, Alice, Miriam Rodrigues, Richard Roxburgh, Shiavnthi Balalla, Chris Higgins, Rohit Bhattacharjee, Kelly Jones, Rita Krishnamurthi, and Valery Feigin. 2014. "Prevalence of Muscular Dystrophies: A Systematic Literature Review." *Neuroepidemiology* 43 (3–4): 259–68. <https://doi.org/10.1159/000369343>.
- They, M. 2010. "Micropatterning as a Tool to Decipher Cell Morphogenesis and Functions." *Journal of Cell Science* 123 (24): 4201–13. <https://doi.org/10.1242/jcs.075150>.
- Théry, Manuel, and Michel Bornens. 2006. "Cell Shape and Cell Division." *Current Opinion in Cell Biology* 18 (6): 648–57. <https://doi.org/10.1016/j.ceb.2006.10.001>.
- Théry, Manuel, Victor Racine, Matthieu Piel, Anne Pépin, Ariane Dimitrov, Yong Chen, Jean-Baptiste Sibarita, and Michel Bornens. 2006. "Anisotropy of Cell Adhesive Microenvironment Governs Cell Internal Organization and Orientation of

- Polarity.” *Proceedings of the National Academy of Sciences of the United States of America* 103 (52): 19771–76. <https://doi.org/10.1073/pnas.0609267103>.
- Torii, Ryo, Rallia-Iliana Velliou, David Hodgson, and Vivek Mudera. 2018. “Modelling Multi-Scale Cell–Tissue Interaction of Tissue-Engineered Muscle Constructs.” *Journal of Tissue Engineering* 9 (August). <https://doi.org/10.1177/2041731418787141>.
- Tu, Michelle K., Jacqueline B. Levin, Andrew M. Hamilton, and Laura N. Borodinsky. 2016. “Calcium Signaling in Skeletal Muscle Development, Maintenance and Regeneration.” *Cell Calcium* 59 (2): 91–97.
- Tu, Michelle Kim, and Laura Noemi Borodinsky. 2014. “Spontaneous Calcium Transients Manifest in the Regenerating Muscle and Are Necessary for Skeletal Muscle Replenishment.” *Cell Calcium* 56 (1): 34–41. <https://doi.org/10.1016/j.ceca.2014.04.004>.
- Twigg, Jeremy, Rajnikant Patel, and Michael Whitaker. 1988. “Translational Control of InsP3-Induced Chromatin Condensation during the Early Cell Cycles of Sea Urchin Embryos.” *Nature* 332 (6162): 366–69. <https://doi.org/10.1038/332366a0>.
- Umeno, A., H. Kotani, M. Iwasaka, and S. Ueno. 2001. “Quantification of Adherent Cell Orientation and Morphology under Strong Magnetic Fields.” *IEEE Transactions on Magnetism* 37 (4): 2909–11. <https://doi.org/10.1109/20.951344>.
- Umeno, A., and S. Ueno. 2003. “Quantitative Analysis of Adherent Cell Orientation Influenced by Strong Magnetic Fields.” *IEEE Transactions on NanoBioscience* 2 (1): 26–28. <https://doi.org/10.1109/TNB.2003.810157>.
- Urish, Kenneth, Yasunari Kanda, and Johnny Huard. 2005. “Initial Failure in Myoblast Transplantation Therapy Has Led the Way toward the Isolation of Muscle Stem Cells: Potential for Tissue Regeneration.” *Current Topics in Developmental Biology* 68: 263–80. [https://doi.org/10.1016/S0070-2153\(05\)68009-X](https://doi.org/10.1016/S0070-2153(05)68009-X).
- Uzel, Sebastien G. M., Randall J. Platt, Vidya Subramanian, Taylor M. Pearl, Christopher J. Rowlands, Vincent Chan, Laurie A. Boyer, Peter T. C. So, and Roger D. Kamm. 2016. “Microfluidic Device for the Formation of Optically Excitable, Three-Dimensional, Compartmentalized Motor Units.” *Science Advances* 2 (8): e1501429. <https://doi.org/10.1126/sciadv.1501429>.
- Vajanthri, Kiran Yellappa, Rakesh Kumar Sidu, Suruchi Poddar, Ashish Kumar Singh, and Sanjeev Kumar Mahto. 2019. “Combined Substrate Micropatterning and FFT

- Analysis Reveals Myotube Size Control and Alignment by Contact Guidance.” *Cytoskeleton* 76 (3): 269–85. <https://doi.org/10.1002/cm.21527>.
- Vandenburgh, H. H., P. Karlisch, and L. Farr. 1988. “Maintenance of Highly Contractile Tissue-Cultured Avian Skeletal Myotubes in Collagen Gel.” *In Vitro Cellular & Developmental Biology: Journal of the Tissue Culture Association* 24 (3): 166–74.
- Vandenburgh, H., and S. Kaufman. 1979. “In Vitro Model for Stretch-Induced Hypertrophy of Skeletal Muscle.” *Science* 203 (4377): 265–68. <https://doi.org/10.1126/science.569901>.
- Villa, C., S. Erratico, M. Belicchi, and Y. Torrente, eds. 2016. “Application of Bioresorbable Polymers in Muscular System.” In *Bioresorbable Polymers for Biomedical Applications: From Fundamentals to ...* - Google Books, first edition, 469–95. Woodhead Publishing.
- Wakelam, M. J. 1985. “The Fusion of Myoblasts.” *Biochemical Journal* 228 (1): 1–12. <https://doi.org/10.1042/bj2280001>.
- Wan, Leo Q., Kacey Ronaldson, Miri Park, Grace Taylor, Yue Zhang, Jeffrey M. Gimble, and Gordana Vunjak-Novakovic. 2011. “Micropatterned Mammalian Cells Exhibit Phenotype-Specific Left-Right Asymmetry.” *Proceedings of the National Academy of Sciences* 108 (30): 12295–300. <https://doi.org/10.1073/pnas.1103834108>.
- Wright, W. E., D. A. Sassoon, and V. K. Lin. 1989. “Myogenin, a Factor Regulating Myogenesis, Has a Domain Homologous to MyoD.” *Cell* 56 (4): 607–17.
- Wu, Zhengjie, Xin Su, Yuanyuan Xu, Bin Kong, Wei Sun, and Shengli Mi. 2016. “Bioprinting Three-Dimensional Cell-Laden Tissue Constructs with Controllable Degradation.” *Scientific Reports* 6 (April): 24474. <https://doi.org/10.1038/srep24474>.
- Yablonka-Reuveni, Z., K. Day, A. Vine, and G. Shefer. 2008. “Defining the Transcriptional Signature of Skeletal Muscle Stem Cells.” *Journal of Animal Science* 86 (14 Suppl): E207-216. <https://doi.org/10.2527/jas.2007-0473>.
- Yablonka-Reuveni, Zipora. 2011. “The Skeletal Muscle Satellite Cell.” *Journal of Histochemistry and Cytochemistry* 59 (12): 1041–59. <https://doi.org/10.1369/0022155411426780>.
- Yamamoto, Daniel L., Robert I. Csikasz, Yu Li, Gunjana Sharma, Klas Hjort, Roger Karlsson, and Tore Bengtsson. 2008. “Myotube Formation on Micro-Patterned

- Glass: Intracellular Organization and Protein Distribution in C2C12 Skeletal Muscle Cells.” *Journal of Histochemistry and Cytochemistry* 56 (10): 881–92. <https://doi.org/10.1369/jhc.2008.951228>.
- Yeatts, Andrew B., and John P. Fisher. 2010. “Tubular Perfusion System for the Long-Term Dynamic Culture of Human Mesenchymal Stem Cells.” *Tissue Engineering Part C: Methods* 17 (3): 337–48. <https://doi.org/10.1089/ten.tec.2010.0172>.
- Yeo, Miji, Hyeongjin Lee, and Geun Hyung Kim. 2016. “Combining a Micro/Nano-Hierarchical Scaffold with Cell-Printing of Myoblasts Induces Cell Alignment and Differentiation Favorable to Skeletal Muscle Tissue Regeneration.” *Biofabrication* 8 (3): 035021. <https://doi.org/10.1088/1758-5090/8/3/035021>.
- Yoshida, N., S. Yoshida, K. Koishi, K. Masuda, and Y. Nabeshima. 1998. “Cell Heterogeneity upon Myogenic Differentiation: Down-Regulation of MyoD and Myf-5 Generates ‘Reserve Cells.’” *Journal of Cell Science* 111 ( Pt 6) (March): 769–79.
- Zammit, P. S. 2006. “Pax7 and Myogenic Progression in Skeletal Muscle Satellite Cells.” *Journal of Cell Science* 119 (9): 1824–32. <https://doi.org/10.1242/jcs.02908>.
- Zammit, Peter S., Jon P. Golding, Yosuke Nagata, Valérie Hudon, Terence A. Partridge, and Jonathan R. Beauchamp. 2004. “Muscle Satellite Cells Adopt Divergent Fates.” *The Journal of Cell Biology* 166 (3): 347–57. <https://doi.org/10.1083/jcb.200312007>.
- Zammit, Peter S., Terence A. Partridge, and Zipora Yablonka-Reuveni. 2006. “The Skeletal Muscle Satellite Cell: The Stem Cell That Came in from the Cold.” *The Journal of Histochemistry and Cytochemistry: Official Journal of the Histochemistry Society* 54 (11): 1177–91. <https://doi.org/10.1369/jhc.6R6995.2006>.
- Zatti, Susi, Alice Zoso, Elena Serena, Camilla Luni, Elisa Cimetta, and Nicola Elvassore. 2012. “Micropatterning Topology on Soft Substrates Affects Myoblast Proliferation and Differentiation.” *Langmuir* 28 (5): 2718–26. <https://doi.org/10.1021/la204776e>.
- Zhang, Hua, Ruixia Hou, Peng Xiao, Rubo Xing, Tao Chen, Yanchun Han, Penggang Ren, and Jun Fu. 2016. “Single Cell Migration Dynamics Mediated by Geometric Confinement.” *Colloids and Surfaces B: Biointerfaces* 145 (September): 72–78. <https://doi.org/10.1016/j.colsurfb.2016.04.039>.

- Zhang, Ming, and Ian S. McLennan. 1995. "During Secondary Myotube Formation, Primary Myotubes Preferentially Absorb New Nuclei at Their Ends." *Developmental Dynamics* 204 (2): 168–77. <https://doi.org/10.1002/aja.1002040207>.
- Zhao, Yu, Rui Yao, Liliang Ouyang, Hongxu Ding, Ting Zhang, Kaitai Zhang, Shujun Cheng, and Wei Sun. 2014. "Three-Dimensional Printing of Hela Cells for Cervical Tumor Model in Vitro." *Biofabrication* 6 (3): 035001. <https://doi.org/10.1088/1758-5082/6/3/035001>.
- Zhang, Z.K., G.Y. Li, and B. Shi. 2006. "Physicochemical Properties of Collagen, Gelatin and Collagen Hydrolysate Derived from Bovine Lined Split Wastes." *Journal of the Society of Leather Technologies and Chemists* 90 (January): 23–28.