

# Stanford

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## Greg Charville, MD, PhD

Assistant Professor of Pathology at the Stanford University Medical Center

### CLINICAL OFFICES

- **Surgical Pathology**

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### ACADEMIC CONTACT INFORMATION

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### Bio

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#### BIO

Dr. Charville has a special interest in the diagnosis of rare tumors that derive from bone and soft tissues, including muscle, fat, blood vessels, cartilage, and other connective tissues. He also specializes in the classification and study of disorders related to the gastrointestinal and hepatopancreatobiliary systems.

Dr. Charville particularly enjoys working alongside Stanford's excellent physicians-in-training to classify the most diagnostically challenging cases in collaboration with pathologists from around the world, bringing to bear cutting-edge techniques for comprehensive histologic and molecular characterization in each case. This experience serves as the inspiration for laboratory-based investigation of the molecular basis of human disease, focusing on genetic and epigenetic mechanisms of neoplasia.

#### CLINICAL FOCUS

- Soft Tissue and Bone Pathology
- Gastrointestinal and Hepatopancreatobiliary Pathology
- Anatomic Pathology

#### ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Pathology

#### HONORS AND AWARDS

- Anatomic Pathology Junior Faculty Teaching Award, Department of Pathology, Stanford University School of Medicine (2019)
- Faculty Mentoring Award, Department of Pathology, Stanford University School of Medicine (2019)
- Arthur Purdy Stout Stipend Award, Arthur Purdy Stout Society of Surgical Pathologists (2017)
- Ruth L. Kirschstein National Research Service Award (F30), National Institute on Aging, National Institutes of Health (2009-2015)
- Medical Scientist Training Program, National Institutes of Health, Stanford University School of Medicine (2007-2015)
- Francis P. Venable Medal, Department of Chemistry, UNC-Chapel Hill (2007)

- Barry M. Goldwater Scholarship, Barry Goldwater Scholarship and Excellence in Education Foundation (2005-2007)

## PROFESSIONAL EDUCATION

- Medical Education: Stanford University School of Medicine (2015) CA
- M.D., Stanford University School of Medicine (2015)
- Ph.D., Stanford University School of Medicine , Developmental Biology (2015)
- Residency: Stanford University Pathology Residency (2018) CA
- Board Certification, American Board of Pathology , Anatomic Pathology (2018)

## Publications

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### PUBLICATIONS

- **DDIT3 Immunohistochemistry Is a Useful Tool for the Diagnosis of Myxoid Liposarcoma.** *The American journal of surgical pathology*  
Scapa, J. V., Cloutier, J. M., Raghavan, S. S., Peters-Schulze, G., Varma, S., Charville, G. W.  
2020
- **OLIG2 is a marker of the fusion protein-driven neurodevelopmental transcriptional signature in alveolar rhabdomyosarcoma.** *Human pathology*  
Raghavan, S. S., Mooney, K. L., Folpe, A. L., Charville, G. W.  
2019
- **EWSR1 fusion proteins mediate PAX7 expression in Ewing sarcoma.** *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc*  
Charville, G. W., Wang, W. L., Ingram, D. R., Roy, A., Thomas, D., Patel, R. M., Hornick, J. L., van de Rijn, M., Lazar, A. J.  
2017
- **PAX7 Expression in Rhabdomyosarcoma, Related Soft Tissue Tumors, and Small Round Blue Cell Neoplasms.** *American journal of surgical pathology*  
Charville, G. W., Varma, S., Forgó, E., Dumont, S. N., Zambrano, E., Trent, J. C., Lazar, A. J., van de Rijn, M.  
2016; 40 (10): 1305-1315
- **Angiosarcoma of the Breast: Management and Outcomes.** *American journal of clinical oncology*  
Gutkin, P. M., Ganjoo, K. N., Lohman, M., von Eyben, R., Charville, G. W., Nazerali, R. S., Dirbas, F. M., Horst, K. C.  
2020
- **AGER1 downregulation associates with fibrosis in nonalcoholic steatohepatitis and type 2 diabetes.** *The Journal of clinical investigation*  
Dehnad, A., Fan, W., Jiang, J. X., Fish, S. R., Li, Y., Das, S., Mozes, G., Wong, K. A., Olson, K. A., Charville, G. W., Ali, M., Török, N. J.  
2020
- **Diffuse PRAME expression is highly specific for malignant melanoma in the distinction from clear cell sarcoma.** *Journal of cutaneous pathology*  
Raghavan, S. S., Wang, J. Y., Toland, A., Bangs, C. D., Rieger, K. E., Novoa, R. A., Charville, G. W., Brown, R. A.  
2020
- **MUC4 is expressed in alveolar rhabdomyosarcoma.** *Histopathology*  
Forgó, E., Hornick, J. L., Charville, G. W.  
2020
- **Tenosynovial giant cell tumor of the suboccipital region - A rare, benign neoplasm in this location.** *Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia*  
Singh, R., Stienen, M. N., Ganjoo, K., Kolahi, K. S., Cayrol, R., Charville, G. W., Born, D. E., Zygourakis, C. C.  
2020
- **"Inflammatory Leiomyosarcoma" and "Histiocyte-rich Rhabdomyoblastic Tumor": a clinicopathological, immunohistochemical and genetic study of 13 cases, with a proposal for reclassification as "Inflammatory Rhabdomyoblastic Tumor".** *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc*  
Cloutier, J. M., Charville, G. W., Mertens, F., Sukov, W., Fritchie, K., Perry, K. D., Edgar, M., Rowsey, R. A., Folpe, A. L.  
2020

- **Distantly Metastatic Retinoblastoma to Soft Tissue and Bone: A Challenging Diagnosis Highlighting the Utility of CRX.** *The American journal of surgical pathology*  
Meredith, D. M., Charville, G. W., Fletcher, C. D., Hornick, J. L.  
2020
- **Sinonasal FUS-ERG-Rearranged Ewing's Sarcoma Mimicking Glomangiopericytoma.** *Case reports in oncology*  
Zhou, M., Ko, Y. C., Charville, G. W., Ganjoo, K. N.  
2020; 13 (3): 1393–96
- **Clinicopathologic characterization of malignant chondroblastoma: a neoplasm with locally aggressive behavior and metastatic potential that closely mimics chondroblastoma-like osteosarcoma.** *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc*  
Papke, D. J., Hung, Y. P., Schaefer, I. M., Bredella, M. A., Charville, G. W., Reith, J. D., Fletcher, C. D., Nielsen, G. P., Hornick, J. L.  
2020
- **Disseminated Pneumocystis jirovecii Infection with Osteomyelitis in a Patient with CTLA-4 Haploinsufficiency.** *Journal of clinical immunology*  
Siddiqi, A. E., Liu, A. Y., Charville, G. W., Kunder, C. A., Uzel, G., Sadighi Akha, A. A., Oak, J., Martin, B., Sacha, J., Lewis, D. B., Gernez, Y.  
2020
- **Non-phagocytic Activation of NOX2 is Implicated in Progressive Non-alcoholic Steatohepatitis During Aging.** *Hepatology (Baltimore, Md.)*  
Jiang, J. X., Fish, S. R., Tomilov, A., Li, Y., Fan, W., Dehnad, A., Gae, D., Das, S., Mozes, G., Charville, G. W., Ramsey, J., Cortopassi, G., Török, et al  
2020
- **Diagnostic classification of soft tissue malignancies: A review and update from a surgical pathology perspective.** *Current problems in cancer*  
Cloutier, J. M., Charville, G. W.  
2019
- **INSM1 Expression in Peripheral Neuroblastic Tumors and Other Embryonal Neoplasms.** *Pediatric and developmental pathology : the official journal of the Society for Pediatric Pathology and the Paediatric Pathology Society*  
Wang, H., Krishnan, C., Charville, G. W.  
2019: 1093526619843725
- **Immune checkpoint blockade as a potential therapeutic strategy for undifferentiated malignancies.** *Human pathology*  
Devereaux, K. A., Charu, V., Zhao, S., Charville, G. W., Bangs, C. D., van de Rijn, M., Cherry, A. M., Natkunam, Y.  
2018; 82: 39–45
- **Impaired Notch Signaling Leads to a Decrease in p53 Activity and Mitotic Catastrophe in Aged Muscle Stem Cells.** *Cell stem cell*  
Liu, L., Charville, G. W., Cheung, T. H., Yoo, B., Santos, P. J., Schroeder, M., Rando, T. A.  
2018
- **When Lightning Strikes Twice.** *Digestive diseases and sciences*  
Baiu, I., Charville, G. W., Visser, B. C.  
2018
- **A Chance to Cut Is a Chance to Cure: Endoscopic Submucosal Dissection for Early Gastric Cancer.** *Digestive diseases and sciences*  
Huang, R. J., Charville, G. W., Hwang, J. H., Friedland, S.  
2018
- **Bioengineered Viral Platform for Intramuscular Passive Vaccine Delivery to Human Skeletal Muscle.** *Molecular therapy. Methods & clinical development*  
Paulk, N. K., Pekrun, K., Charville, G. W., Maguire-Nguyen, K., Wosczyzna, M. N., Xu, J., Zhang, Y., Lisowski, L., Yoo, B., Vilches-Moure, J. G., Lee, G. K., Shrager, J. B., Rando, et al  
2018; 10: 144–55
- **Serous Neoplasms of the Pancreas: A Comprehensive Review.** *Archives of pathology & laboratory medicine*  
Charville, G. W., Kao, C. S.  
2018; 142 (9): 1134–40
- **Resolution of Crizotinib-Associated Fulminant Hepatitis following Cessation of Treatment.** *Case reports in hepatology*  
Charville, G. W., Padda, S. K., Sibley, R. K., Puthillath, A., Kwo, P. Y.  
2018; 2018: 3413592

- **Immunohistochemistry for PAX7 is a useful confirmatory marker for Ewing sarcoma in decalcified bone marrow core biopsy specimens.** *Virchows Archiv : an international journal of pathology*  
Fernandez-Pol, S., van de Rijn, M., Natkunam, Y., Charville, G. W.  
2018
- **PAX7 expression in sarcomas bearing the EWSR1-NFATC2 translocation.** *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc*  
Charville, G. W., Wang, W. L., Ingram, D. R., Roy, A., Thomas, D., Patel, R. M., Hornick, J. L., van de Rijn, M., Lazar, A. J.  
2018
- **The SS18-SSX Fusion Oncoprotein Hijacks BAF Complex Targeting and Function to Drive Synovial Sarcoma.** *Cancer cell*  
McBride, M. J., Pulice, J. L., Beird, H. C., Ingram, D. R., D'Avino, A. R., Shern, J. F., Charville, G. W., Hornick, J. L., Nakayama, R. T., Garcia-Rivera, E. M., Araujo, D. M., Wang, W. L., Tsai, et al  
2018
- **Gastrointestinal Tract Vasculopathy: Clinicopathology and Description of a Possible "New Entity" With Protean Features.** *The American journal of surgical pathology*  
Louie, C. Y., DiMaio, M. A., Charville, G. W., Berry, G. J., Longacre, T. A.  
2018
- **Endoscopic Resection of Skull Base Teratoma in Klippel-Feil Syndrome through Use of Combined Ultrasonic and Bipolar Diathermy Platforms.** *Case reports in otolaryngology*  
Edward, J. A., Psaltis, A. J., Williams, R. A., Charville, G. W., Dodd, R. L., Nayak, J. V.  
2017; 2017: 6384586-?
- **Prognostic Gene Expression Signatures in Sarcoma: Finding Clarity in Complexity.** *Annals of oncology : official journal of the European Society for Medical Oncology*  
Charville, G. W., Lazar, A. J.  
2017
- **Surgical Pathology of Gastrointestinal Stromal Tumors: Practical Implications of Morphologic and Molecular Heterogeneity for Precision Medicine.** *Advances in anatomic pathology*  
Charville, G. W., Longacre, T. A.  
2017
- **Evidence for a 'preinvasive' variant of fungal sinusitis: Tissue invasion without angioinvasion.** *World journal of otorhinolaryngology - head and neck surgery*  
Paknezhad, H., Borchard, N. A., Charville, G. W., Ayoub, N. F., Choby, G. W., Thamboo, A., Nayak, J. V.  
2017; 3 (1): 37-43
- **Pathways to clinical CLARITY: volumetric analysis of irregular, soft, and heterogeneous tissues in development and disease.** *Scientific reports*  
Hsueh, B., Burns, V. M., Pauerstein, P., Holzem, K., Ye, L., Engberg, K., Wang, A. C., Gu, X., Chakravarthy, H., Arda, H. E., Charville, G., Vogel, H., Efimov, et al  
2017; 7 (1): 5899
- **Ex Vivo Expansion and In Vivo Self-Renewal of Human Muscle Stem Cells** *STEM CELL REPORTS*  
Charville, G. W., Cheung, T. H., Yoo, B., Santos, P. J., Lee, G. K., Shrager, J. B., Rando, T. A.  
2015; 5 (4): 621-632
- **Isolation of skeletal muscle stem cells by fluorescence-activated cell sorting** *NATURE PROTOCOLS*  
Liu, L., Cheung, T. H., Charville, G. W., Rando, T. A.  
2015; 10 (10): 1612-1624
- **Bordetella petrii Sinusitis in an Immunocompromised Adolescent.** *Pediatric infectious disease journal*  
Nagata, J. M., Charville, G. W., Klotz, J. M., Wickremasinghe, W. R., Kann, D. C., Schwenk, H. T., Longhurst, C. A.  
2015; 34 (4): 458-?
- **mTORC1 controls the adaptive transition of quiescent stem cells from G0 to G(Alert).** *Nature*  
Rodgers, J. T., King, K. Y., Brett, J. O., Cromie, M. J., Charville, G. W., Maguire, K. K., Brunson, C., Mastey, N., Liu, L., Tsai, C., Goodell, M. A., Rando, T. A.  
2014; 510 (7505): 393-396

- **The mortal strand hypothesis: Non-random chromosome inheritance and the biased segregation of damaged DNA.** *Seminars in cell & developmental biology*  
Charville, G. W., Rando, T. A.  
2013; 24 (8-9): 653-660
- **Chromatin Modifications as Determinants of Muscle Stem Cell Quiescence and Chronological Aging** *CELL REPORTS*  
Liu, L., Cheung, T. H., Charville, G. W., Hurgo, B. M., Leavitt, T., Shih, J., Brunet, A., Rando, T. A.  
2013; 4 (1): 189-204
- **A sexy spin on nonrandom chromosome segregation.** *Cell stem cell*  
Charville, G. W., Rando, T. A.  
2013; 12 (6): 641-643
- **Maintenance of muscle stem-cell quiescence by microRNA-489** *NATURE*  
Cheung, T. H., Quach, N. L., Charville, G. W., Liu, L., Park, L., Edalati, A., Yoo, B., Hoang, P., Rando, T. A.  
2012; 482 (7386): 524-U247
- **Stem cell ageing and non-random chromosome segregation** *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*  
Charville, G. W., Rando, T. A.  
2011; 366 (1561): 85-93
- **Reduced bacterial adhesion to fibrinogen-coated substrates via nitric oxide release** *BIOMATERIALS*  
Charville, G. W., Hetrick, E. M., Geer, C. B., Schoenfisch, M. H.  
2008; 29 (30): 4039-4044
- **Nitric oxide-releasing xerogel-based fiber-optic pH sensors** *ANALYTICAL CHEMISTRY*  
Dobmeier, K. P., Charville, G. W., Schoenfisch, M. H.  
2006; 78 (21): 7461-7466