Date: 12/2018

#### JOSHUA A. GORDON M.D.

Address 2299 Post Street #103, San Francisco, CA 94115

Education

08/2001 – 05/2005 BA Pitzer College, Claremont, CA

08/2003 – 11/2003 Bei Jing University 北京大学 (北大) study abroad program,

Beijing, China

07/2005 - 06/2007

And 07/2009 – 06/2011 MD David Geffen School of Medicine at the University of California Los

Angeles, Los Angeles, CA

### Positions Held

| 1998              | Jamba Juice, team member  |
|-------------------|---|
| 07/2007 - 06/2009 | HHMI-NIH Research Scholars program, National Institutes of Health,        |
|                   | Bethesda MD   |
| 06/2011 - 06/2012 | Surgical Intern, Department of General Surgery at the Hospital of the     |
|                   | University of Pennsylvania, Philadelphia PA                               |
| 07/2012 - 06/2013 | Orthopaedic Surgery Resident, Department of Orthopaedic Surgery,          |
|                   | Hospital of the University of Pennsylvania, Philadelphia PA               |
| 07/2013 - 06/2014 | Post-Doctoral Resident Research Fellow, Dr. Louis J. Soslowsky's          |
|                   | laboratory in the McKay Orthopaedic Laboratories, University of           |
|                   | Pennsylvania, Philadelphia PA   |
| 07/2014 - 07/2017 | Orthopaedic Surgery Resident, Department of Orthopaedic Surgery,          |
|                   | Hospital of the University of Pennsylvania, Philadelphia, PA              |
| 08/2017 - 8/2018  | Hand Surgery Fellowship, University of Washington, Seattle, WA            |
| 09/2018 – Present | Attending Surgeon, Hand and Microsurgery Medical Group Inc., San          |
|                   | Francisco, CA   |
| 9/2018 – Present  | Vice President of sales and management, Western Region, GRT Property      |
|                   | Management Inc., San Francisco, CA  |
| 09/2018 – Present | Acting Chief Operating Officer (COO), Pontis Orthopaedics, San Francisco, |
|                   | CA  |
|                   |   |

# Awards, Honors and Membership in Honorary Societies

| 2005 | Inducted into Sigma Xi, The Scientific Research Society                     |
|------|---|
| 2005 | Honors in Chemistry, Pitzer College   |
| 2005 | Honors Undergraduate Thesis on the measurement of PM 2.5 Bulk               |
|      | Chemical Composition and Characterization of Claremont Aerosol System,      |
|      | Keck Joint Science Center   |
| 2007 | Howard Hughes Medical Institute /National Institutes (HHMI/NIH) of          |
|      | Health Cloister Scholarship Award   |
| 2008 | HHMI/NIH Advanced Scholarship Award   |
| 2011 | Alpha Omega Alpha, Medical education honors society, David Geffen           |
|      | School of Medicine at the University of                                     |
|      | California Los Angeles  |
| 2011 | Selected for UCLA Global Health Education Program (GHEP) Scholarship        |
|      | in Cape Town, South Africa – Somerset hospital/Cape Town University         |
| 2011 | Edith and Carl Lasky Memorial Award for Outstanding Research, awarded       |
|      | annually to one graduating medical student, David Geffen School of          |
|      | Medicine at the University of California Los Angeles                        |
| 2014 | Best paper presentation Research day, University of                         |
|      | Pennsylvania Department of Orthopaedic Surgery                              |
| 2014 | Co-author Journal of Orthopaedic Research "Editors Pick" November 2014      |
|      | "Scapular dyskinesis is detrimental to shoulder tendon properties and joint |
|      |   |

|      | mechanics in a rat model"  |
|------|--|
| 2016 | Elected administrative chief resident, University of Pennsylvania,       |
|      | Department of Orthopaedic Surgery  |
| 2016 | Selected for The American Orthopaedic Association (AOA) Resident         |
|      | Leadership forum   |
| 2016 | Selected for AAOS/OREF/ORS Clinician Scholar Career Development          |
|      | Program  |
| 2017 | DeForest P. Willard, M.D., award for outstanding performance as a senior |
|      | orthopaedic resident (University of Pennsylvania)                        |
| 2017 | F. William Bora Jr., M.D., Award for excellence in upper extremity and   |
|      | hand surgery (University of Pennsylvania)                                |

### Memberships in Professional and Scientific Societies

American Academy of Orthopaedic Surgery (AAOS) Orthopaedic research Society (ORS) Alpha Omega Alpha (AOA) Arthroscopy Association of North America (AANA) American Society for Surgery of the Hand (ASSH)

## **Editorial Positions**

| 2013 - 2014    | Editor in Chief, University of Pennsylvania Orthopaedic Journal (UPOJ.org) |
|----------------|--|
| 2014 - 2015    | Section Editor, Hand, University of Pennsylvania Orthopaedic Journal       |
|                | (UPOJ.org)   |
| 2013 - 2015    | Website redesign team, University of Pennsylvania Orthopaedic Journal      |
|                | (UPOJ.org)   |
| 2016 – Present | Ad-hoc reviewer Journal of Orthoapedic Research (JOR)                      |
| 2018 – Present | Ad-hoc reviewer Journal of Hand Surgery Global Online "JHS GO"             |

#### Grants

Orthopaedic Research and Education Foundation (OREF), Resident clinician scientist training grant PI \$25,000 07/01/13-06/30/14

The effect of early mobilization after surgical repair of an Achilles tendon rupture in a rat model.

Arthroscopy Association of North America (AANA)

PI \$18,000 5/3/14-Current

Adhesive capsulitis, genome wide expression analysis exploring the role of diabetes in pathogenesis.

University of Pennsylvania Department of Radiology Protocol Development award

PI \$2,500 10/10/16-10/10/17

Comparison of ultrasound and MRI for evaluating zone II partial flexor tendon lacerations

# Academic Committees at the University of Pennsylvania:

| 2013 – 2014 | Department of Orthopaedic Surgery Graduate Medical Education               |
|-------------|--|
|             | Committee (GMEC)   |
| 2013 - 2014 | Resident representative, House Staff Graduate Medical education            |
|             | Committee (GMEC)   |
| 2014 - 2017 | University of Pennsylvania department of orthopaedic surgery "I-tunes U"   |
|             | curriculum admin support   |
| 2015 - 2017 | Medical Student education coordinator                                      |
| 2016 - 2017 | Lead quality officer of the University of Pennsylvania Orthopaedic Quality |
|             | Council (founding year)  |
| 2016 - 2017 | Resident representative, House Staff Graduate Medical education            |
|             | Committee (GMEC)   |
| 2017        | Resident selection committee, resident member                              |

#### Professional and Outreach Activities

| 2003        | Orthopaedic care mission volunteer with Operation Rainbow. Leon, Nicaragua  |
|-------------|---|
| 2006        | Orthopaedic care mission volunteer with Operation Rainbow. Port of Spain, Trinidad  |
| 2009        | Orthopaedic care mission volunteer with Operation Rainbow.  Manta, Ecuador  |
| 2009        | Session Co-chair – Cell and developmental Biology Howard Hughes<br>Medical Institute Meeting of Medical Fellows, Research Scholars<br>and Physician-Scientist Early Career Awardees. Chevy Chase,<br>Maryland |
| 2013        | Compartment Syndrome, Guest lecture given for nursing enrichment at the Hospital of the University of Pennsylvania (HUP). Philadelphia, PA  |
| 2014        | Orthopaedic care mission volunteer with Operation Rainbow.<br>Zihuatenejo, Mexico   |
| 2014        | ORS/OREF/AAOS New Investigator workshop. Chicago, IL  |
| 2016 – 2017 | Administrative chief resident (Admin for quality improvement, medical student and resident education), University of Pennsylvania, Philadelphia, PA   |
| 2016        | Participant AAOS/OREF/ORS Clinician Scholars Career Development program   |
| 2018        | State of the art in flexor tendon repairs, what I do and why, Guest lecture to the occupational therapy staff, California Pacific Medical Center (CPMC)   |
|             |   |

### Language Training

| 2002 - 2003 | Collegiate beginner and intermediate Chinese, Pomona College, |
|-------------|---|
|             | Claremont, California   |
| 2003        | Chinese immersion program, Bejing University, Beijing (北大),   |
|             | China   |
| 2005        | Chinese Summer Link Program, Bejing University (北大), Beijing, |
|             | China   |

### **Presentations**

- Buterbaugh KL, Gordon JA, Kazmers NH, Steinberg, DR, Bozentka DJ, Khoury V. A comparison of magnetic resonance imaging and ultrasounographic evaluation of zone II partial flexor tendon lacerations: a cadaveric study (Presentation pending for ASSH 2018)
- **Gordon JA.** The Resident perspectives on ACGME requirements. Invited presentation. American Orthopaedic Association, Charlotte, North Carolina (2017)
- Freedman BR, Morris TR, Nuss C, Riggin CN, Salka N, **Gordon JA**, Shen A, Farber D, Soslowsky LJ. Aggressive rehabilitation with nonsurgical treatment demonstrates improved fatigue mechanics and functional outcomes following Achilles tendon rupture in an animal model. Orthopaedic Research Society, Orlando Florida (2016)
- Riggin CN, Khoury V, **Gordon JA,** Schultz SM, Pardes AM, Sehgal CM, Soslowsky LJ. Ultrasound-Guided dry needling on healthy rat supraspinatus tendon. International Symposium on Ligaments & Tendons XIV (ISL&T-XIV), Las Vegas, Nevada (2015)
- Gordon JA, Freedman BR, Zuskov A, Iozzo R. Birk DE, Soslowsky LJ. Achilles tendons from decorin and biglycan deficient mice demonstrate inferior mechanical and structural properties predicted by an image-based empirical damage model. Orthopaedic Research Society, Las Vegas, Nevada (2015)
- Kneeland BJ, D'Aquilla, Saxena V. **Gordon JA**, Singh Anup, Hariharan H. Sennett B, Reddy R. Use of T1Rho MRI for assessment of glenohumeral joint cartilage injury following subacute shoulder dislocations. Musculoskeletal Series Shoulder Imaging, Radiological Society of North America, Chicago Illinois (2014)
- **Gordon JA,** Freedman B, Zuskov A, Iozzo R, Birk DE, Soslowsky LJ. Biomechanical evaluation of damage in a mouse model of Achilles tendon injury and degeneration. Selected as best presentation. University of Pennsylvania Department of Orthopaedic Surgery Research Day Symposium, Philadelphia, Pennsylvania (2014)

- Gordon JA., Freedman B., Zuskov A., Iozzo R., Birk DE., Soslowsky LJ. The effect of small leucine-rich proteoglycans (SLRPs) on the Achilles tendon, a structural and mechanical study in an aging mouse model. Northeast regional ORS/OREF Residents Research Symposium, Columbia University, New York, New York (2014)
- **Gordon JA.** Case presentation of a trans-olecranon elbow fracture, Foundation for Orthopaedic Trauma (FOT) Annual Meeting, Las Vegas Nevada (2013)
- McDonald E., **Gordon JA**., Buckley JM., Gordon L. The importance of the flexor digitorum superficialis tendon in tendon repair: an analysis of anatomy, strength and friction. LeRoy C. Abbott Society Scientific Program and 31<sup>st</sup> annual Veme T. Inman Lectureship (presented by L. Gordon). Mission bay, San Francisco, California (2010)
- Gordon JA., Day T., Yang Y. Interaction between Wnt and BMP signaling in joint development. Howard Hughes Medical Institute Meeting of Medical Fellows, Research Scholars and Physician-Scientist Early Career Awardees, Chevy Chase, Maryland (2009)
- Gordon JA, Mak K., Yang Y.Small Molecule inhibition of hedgehog signaling in adult mouse bone homeostasis. Howard Hughes Medical Institute Meeting of Medical Fellows and Research Scholars, and Physician-Scientist Early Career Awardees, Chevy Chase, Maryland (2008)

#### PUBLISHED WORKS

### Posters and Abstracts

- Salka NS, Bhatt PR, Freedman BR, Morris TR, Beach ZM, Gordon JA, Soslowsky LJ. Muscle Adapts Dynamically Following Acute Achilles Tendon Rupture in a Rat Model. Orthopaedic Research Society, accepted San Diego, California (2017)
  - Shetye SS, Freedman BR, Fryhofer GW, Riggin CN, **Gordon JA**, Thoma SJ, Farber DC, Soslowsky LJ. Structural and in vivo functional measures predict Achilles Tendon fatigue mechanics during healing. Orthopaedic Research Society, accepted San Diego, California (2017)
- Gordon JA, Kazmers NH Buterbaugh K, Steinberg DR, Bozentka DJ, Khoury V. Ultrasonogaphic evaluation of zone II partial flexor tendon lacerations: a cadaveric study. electronic poster, American Association for Hand Srugery, Waikoloa, Hawaii (2017)
- Freedman BR, Morris TR, Salka N, **Gordon JA**, Pardes AM, Riggin CN, Nuss C, Tucker JJ, Bhatt PB, Fryhofer G, Farber DC, Soslowsky LJ. Termporal healing response of Achilles Tendons in rodents following injury depends on surgical treatment and return to activity time. Biomechanics, Bioengineering and Biotransport Conference (SB<sup>3</sup>C), National Harbor, Maryland (June 2016)
- Morris TR, Freedman BR, Bhatt P, **Gordon JA**, Soslowsky LJ. Immunohistochemical Analysis of Muscle Tissue Following Blunt Achilles Tendon Transection in a Rat Model. Orthopaedic Research Society, Orlando Florida (2016)
- Tucker JJ, Gordon JA, Zanes RC, Zuskov A, Cirone JM, Vinciguerra JD, Bloebaum RD, Soslowsky LJ. P<sup>2</sup> Porous titanium implants improve early tendon healing in a rat supraspinatus repair model. Orthopaedic Research Society, Las Vegas, Nevada (2015)
- Freedman BR, **Gordon JA**, Thomas ST, Bhatt PB, Riggin CN, Sarver JJ, Tucker JJ, Zanes B, Pardes A, Lee DY, Hast MW, Soslowsky LJ. Comprehensive evaluation of treatment for Achilles tendon ruptures during early healing in an animal model. Orthopaedic Research Society, Las Vegas, Nevada (2015)
- Reuther KE, Tucker JJ, Thomas SJ, Vafa RP, Gordon JA, Yannascoli SM, Caro AC, Kuntz AF, Soslowsky LJ. Effect of scapular dyskinesis on supraspinatus tendon healing in a rat model. Orthopaedic Research Society, Las Vegas, Nevada (2015)
- Saxena, D'Aquilla K, Marcoon S, **Gordon JA**, Carey JL, Ari Borthakur J, Kneeland B, Reddy R, Sennett BJ. T1Rho magnetic resonance imaging to assess cartilage damage after primary shoulder dislocation. Accepted for American Orthopaedic Society for Sports Medicine, Specialty day, Las Vegas, Nevada (2015)
- McDonald E, **Gordon JA**, Buckley JM, Gordon L. Evaluation of methods used to reduce the force of flexion following primary flexor tendon repair. Orthopedic Research Society. Long Beach, California (2011)
- McDonald E, **Gordon JA**, Fischer J, Bartlett T, Buckley JM, Gordon L. Comparison of a new flexor tendon repair using multi-filament stainless steel suture with the savage technique. Orthopedic Research Society. New Orleans, Louisiana. (2010)
- **Gordon JA**, Redding K, Lyons K. Overlap and interaction within the smad 1,5,8 molecular signaling pathway. Journal of Investigative Medicine, Vol. 55 (1), #445, (2007)

#### Video Publications:

- Galvez MG, Prsic A, Gordon JA, Huang JI. Ulnar sided Hand/Wrist Anatomy, American Academy of Orthopaedic Surgeons (AAOS) Video Theatre (accepted presentation for 2019 annual meeting)
- Galvez MG, Prsic A, Gordon JA, Huang JI. Dorsal Wrist Anatomy, American Academy of Orthopaedic Surgeons (AAOS) Video Theatre (accepted presentation for 2019 annual meeting)

#### Peer Reviewed Publications:

- Andrey Z, Freedman BR, **Gordon JA**, Soslowsky LJ. Tendon biomechanics and crimp properties following fatigue loading are influenced by tendon type and age in mice. Submitted to J. Biomech Engineering (Under review)
- Riggin CN, Chen M, Khoury V, **Gordon JA**, Schultz S, Soslowsky LJ. Ultrasound-guided dry needling of the healthy rat supraspinatus tendon elicits early healing without causing permanent damage. Submitted to Journal of Orthopaedic Research (Under Review)
- Kazmers, NH, **Gordon JA**, Buterbaugh KL, Bozentka DJ, Steinberg DR, Khoury V. Ultrasonographic Evaluation of Zone II Partial Flexor Tendon Lacerations of the Fingers: A Cadaveric Study. J Ultrasound Med. 2018 Apr;37(4) 941-948
- Kazmers NH, Liu TC, **Gordon JA**, Bozentka DJ, Steinberg DR, Gray BL. Patient- and Disease-Specific Factors Associated with Operative Management of deQuervain Tendinopathy. J Hand Surg Am. 2017 Nov;42(11):931.e1-937.e7.
- Freedman BR, Salka NS, Morris TR, Bhatt PR, Pardes AM, **Gordon JA**, Nuss CA, Riggin CN, Fryhofer GW, Farber DC, Soslowsky L. Temporal healing of Achilles tendons following injury in rodents depends on surgical treatment and activity. Journal of the American Academy of Orthopaedic Surgeons, Journal of the American Academy of Orthopaedic Surgery, 2017 Sep;25(9):635-647
- Tucker JJ, **Gordon JA**, Zanes RC, Zuskov A, Vinciguerra JD, Bloebaum RD, Soslowsky LJ. P<sup>2</sup> Porous Titanium Implants Improve Tendon Healing in an Acute Rat Supraspinatus Repair Model. Journal of Shoulder and Elbow Surgery. Journal of Shoulder and Elbow Surgery, 2017 Mar;26(3):529-535
- Saxena V, D'Aquilla K, Marcoon S, Krishnamoothy G, **Gordon JA**, Carey JL, Borthakur A, Kneeland JB, Kelly JD 4<sup>th</sup>, Reddy R, Sennett BJ. T1p Magnetic Resonance Imaging to Assess Cartilage Damage After Primary Shoulder Dislocation. American Journal of Sports Medicine, 2016, Nov;44(11):2800-2806
- Freedman BR, **Gordon JA**, Bhatt PB, Pardes AM, Thomas SJ, Sarver JJ, Riggin CN, Tucker JJ, Williams AW, Zanes RC, Hast MW, Farber DC, Silbernagel KG, Soslowsky LJ. Nonsurgical treatment and early return to activity leads to improved Achilles tendon fatigue mechanics and functional outcomes during early healing in an animal model. Journal of Orthopaedic Research, 2016 Dec:34(12):2172-2180
- Gordon JA, Freedman BR, Zuskov A, Iozzo RV, Birk DE, Soslowsky LJ. Achilles tendons from decorin- and biglycan-null mouse models have inferior mechanical and structural properties predicted by an image-based empirical damage model. Journal of Biochemistry, 2015 Jul 16;48(10):2110-5
- Reuther RE, Tucker JJ, Thomas SJ, Vafa RP, Liu SS, **Gordon JA**, Caro AC, Yannascoli SM, Kuntz AF, Soslowsky LJ. Effect of scapular dyskinesis on supraspinatus repair healing in a rat model. Journal of shoulder and elbow surgery, 2015, Aug;24(8):1235-42
- Reuther KE, Thomas SJ, Tucker JJ, Vafa RP, **Gordon JA**, Liu SS, Caro AC, Yannascoli SM, Kuntz AF, Soslowsky LJ. Overuse activity in the presence of scapular dyskinesis leads to shoulder tendon damage in a rat model. Annals of Biomedical Engineering, 2015, Apr;43(4):917-28
- Reuther KE, Thomas SJ, Tucker, JJ, Yannascoli SM, Caro AC, Vafa RP, Liu SS, **Gordon JA**, Bhatt PR, Kuntz AF, Soslowsky LJ. Scapular dyskinesis is detrimental to shoulder tendon properties and joint mechanics in a rat model. Journal of Orthopaedic Research 2014, Nov;32(11):1436-1443 (Editors Pick for the Month of November)
- Gordon JA, McDonald E, Buckley JM, Gordon L. Biomechanical evaluation of a cable-crimp system designed for repair of tendons and ligaments in the hand. Journal of Surgical Orthopaedic Advances 2013 Winter 22(4)
- McDonald E, **Gordon JA**, Buckley JM, Gordon L. Comparison of a multifilament stainless steel suture with fiberwire for flexor tendon repairs an in vitro biomechanical study. J Hand Surg Eur Vol. 2013, May;38 (4):418-23
- Gordon L, Matsui J, McDonald E, **Gordon JA**, Neimkin R. Analysis of a knotless flexor tendon repair using a multifilament stainless steel cable-crimp system. J Hand Surg Am. 2013 Apr;38(4):677-83
- Gordon JA, Stone L, Gordon L, Surface markers for locating the pulleys and flexor tendon anatomy in the palm and fingers with reference to minimally invasive incisions. J Hand Surg Am. 2012 May;37(5):913-8
- McDonald E, Gordon JA, Buckley JM, Gordon L. Comparison of a new multifilament stainless steel suture with frequently used sutures for flexor tendon repair. J Hand Surg Am. 2011 Jun;36(6):1028-34

#### **Book Chapters:**

- Gordon JA, Hanel DP. Distal Radius and Ulna Fractures. Rehabilitation of the hand and upper extremity 7th ed., In press
- Gordon JA, Huang JI. The American Society for Surgery of the Hand. Textbook of Hand and upper extremity Surgery., In press.
- Gordon JA & Shah AS. Open Treatment of Metacarpal Shaft Fractures, Pediatric Orthopedic Trauma Case Atlas. Editors: Lobst C and Frick SL. Springer, in press
- Gordon JA, Breitbart E, Austin DC, Photopoulos CD, Kelly JD. Adhesive capsulitis: diagnosis, etiology and treatment strategies. In: Kelly JD, editor. Elite techniques in shoulder arthroscopy: New frontiers in shoulder preservation. New York: Springer; 2016
- Steele B, **Gordon JA**, Labbé M. The use of graft augmentation in the treatment of massive rotator cuff tears. In: Kelly JD, editor. Elite techniques in shoulder arthroscopy: New frontiers in shoulder preservation. New York: Springer; 2016
- Gordon JA, & Griska A. Chapter 4. Hand, Orthopaedic Secrets: 4th edition. Editors: Namdari S, Pill SG, Mehta S. Elsevier Saunders, 2015
- Regard JB, Mak KK., Gordon, JA and Yang Y. Hedgehog signaling in growth plate and bone development. Topics in Bone Biology, Bone and Development. Vol. 6, Springer, 2010

#### Review articles

- Melnic CM, **Gordon JA**, Courtney PM, Sheth NP. A Systematic Approach to Evaluating Knee Radiographs with a Focus on Osteoarthritis. J Orthopedics Rheumatol. 2014 Jan Vol.:2, Issue: 1
- Freedman BR, **Gordon JA**, Soslowsky LJ. The Achilles Tendon: Fundamental properties and mechanisms governing healing. Muscles, Ligaments, Tendons Journal. 2014 Jul 14L4(2):245-55

### Editorials, books and other Written Works

- **Gordon JA,** Talerico MT, Anari JB, Dattilo JR, The University of Pennsylvania Orthopaedic Curriculum, University of Pennsylvania Orthopaedic Journal (2017)
- Gordon JA, Taleric MT, Anari JB, Chiefs Corner 2016-2017, University of Pennsylvania Orthopaedic Journal (2017)
- **Gordon JA,** Pio F, Neuwirth A, Hume E. Quality Improvement in the Department of Orthopaedic Surgery in the University of Pennsylvania health System, University of Pennsylvania Orthopaedic Journal (2017)
- Gordon JA, Saxena V, Letter from the Editors-in-Chief, University of Pennsylvania Orthopaedic Journal (2014)
- Gordon JA. From the Penn Orthopaedics Human Tissue Lab, University of Pennsylvania Orthopaedic Journal (2014)
- Johnson TS, **Gordon JA**, Levin LS. Penn microsurgical skills cadaver course for hand fellows and residents, University of Pennsylvania Orthopaedic Journal (2014)
- Murphy JE, **Gordon JA**, International Congress for Joint Reconstruction (ICJR) Inaugural Philadelphia Revision Arthroplasty Course. University of Pennsylvania Orthopaedic Journal (2014)
- **Gordon JA.** Editorial coverage of the first annual June Wapner Endowed Lectureship at the University of Pennsylvania, Distinguished Guest: Dr. Roger Mann, MD. University of Pennsylvania Orthopaedic Journal (2013)
- Gordon JA. Pitzer College 2007 (College Prowler) (off the Record). College Prowler