

CURRICULUM VITAE

Khaled A. Elsaid, Pharm.D, Ph.D., M.B.A.

EDUCATION AND TRAINING

- 2005 Ph.D. in Pharmacology and Toxicology, University of Rhode Island, Kingston, RI, USA
- 2008 Pharm.D, Massachusetts College of Pharmacy and Health Sciences, Boston, MA, USA
- 2002 MBA, University of Rhode Island, Kingston, RI, USA
- 2001 MS in Biomedical Sciences, University of Rhode Island, Kingston, RI, USA
- 1997 BS in Pharmaceutical Sciences, Cairo University, Cairo, Egypt

PROFESSIONAL & ADMINISTRATIVE EXPERIENCE

- 05/2019-Present Associate Professor of Pharmacology, Chapman University School of Pharmacy, Irvine, CA (Tenured)
- 08/2016-05/2019 Associate Professor of Pharmacology, Chapman University School of Pharmacy, Irvine, CA (Tenure-Track)
- 07/2014-07/2016 Associate Professor of Pharmacology and Toxicology, MCPHS University, School of Pharmacy, Boston, MA (MCPHS is a non-tenure institution)
- 08/2009-06/2014 Assistant Professor of Pharmacology and Toxicology, MCPHS University (formerly known as Massachusetts College of Pharmacy and Health Sciences), School of Pharmacy, Boston, MA (MCPHS is a non-tenure institution)
- 10/2005-07/2009 Research Associate, Division of Medicine, Brown University, Providence, RI
- 09/2008-07/2016 Clinical Pharmacist Specialist, Rhode Island Hospital, Providence, RI
- 01/2005-06/2006 Adjunct Faculty, University of Rhode Island College of Pharmacy, Kingston, RI
- 09/1999-05/2005 Graduate Assistant, University of Rhode Island College of Pharmacy, Kingston, RI
- 09/1997-08/1999 Teaching Assistant, Cairo University College of Pharmacy, Cairo, Egypt

RESEARCH AND SCHOLARSHIP

a. Research Grants

Active:

R01AR067748 (Elsaid & Jay) 05/01/2016-04/30/2022
“Non-Tribologic Bioactivity of Lubricin”
NIH/NIAMS
Role: Principal Investigator
Direct Costs: \$1,850,815

Faculty Opportunity Fund (Elsaid) 06/01/2021-05/31/2022
“Role of Protein Phosphatase-2A in Regulating Macrophage Activation in Calcium Pyrophosphate
Deposition Disease”
Role: Principal Investigator
Chapman University

Completed:

R42AR057276 (Fleming & Jay) 09/01/2013-08/31/2015
Tribosupplementation of Injured Joints
NIH/NIAMS
Role: Co-Investigator

R15AR061722 (D’Souza & Elsaid) 08/01/2011-07/31/2014
“Nanocarriers for intra-articular drug delivery following ACL injury”
NIH/NIAMS
Role: Principal Investigator (administrative contact)
Direct Costs: \$250,000

Risk Management Grant (Collins & Elsaid) 11/01/2010-10/31/2011
“A Pharmacy-led Intervention to Optimize the Use of Pharmacologic Thromboprophylaxis in
Hospitalized Medical Patients at Rhode Island Hospital”
Lifespan Corporation
Role: Principal Investigator

Faculty Development Grant (Elsaid) 12/01/2009-11/30/2010
“Lubricin Chondroprotection Following an ACL Injury in Mobilized and Non-Mobilized Joints: A
Preliminary Investigation”
MCPHS University
Role: Principal Investigator

R21AR055937 (Jay) 04/01/2008-03/31/2010
“Restitution of Lubrication in ACL Deficient Joints Preventing Wear”
NIH/NIAMS
Role: Co-Investigator

NCRR P20 RR024484 (Jay) 09/01/2007-08/31/2013
“Lubricin in ACL Deficient Joints”

NCRR
Role: Co-Investigator

b. Contracts and Industry Collaborations

Completed:

“*In vitro* evaluation of the biological activity of heparin-binding domain-interleukin-1 receptor antagonist (HB-IL-1 ra)”
Proteothera, Inc, Cambridge, MA
Role: Principal Investigator

c. Bibliography

Total Citations: 2,803
h-Index: 25
I10 Index: 34

Google Scholar Webpage:

<https://scholar.google.com/citations?user=QamtVUwAAAAJ&hl=en>

Original Reports:

*Denotes corresponding author.

Qadri M, Elsayed S, ***Elsaid KA**. Fingolimod Phosphate (FTY720-P) Activates Protein Phosphatase 2A in Human Monocytes and Inhibits Monosodium Urate Crystal-Induced IL-1 β Production. *J Pharmacol Exp Ther*. 2021;376:222-230. DOI: [10.1124/jpet.120.000321](https://doi.org/10.1124/jpet.120.000321); [PMID: 33239408].

Richendrfer HA, Levy M, **Elsaid KA**, Schmidt TA, Zhang L, Cabezas R, *Jay, GD. Recombinant Human Proteoglycan-4 Mediates Interleukin-6 Response in Both Human and Mouse Endothelial Cells Induced into a Sepsis Phenotype. *Critical Care Explorations*: June 2020 - Volume 2 - Issue 6 - p e0126. DOI: [10.1097/CCE.000000000000126](https://doi.org/10.1097/CCE.000000000000126). [PMID: 32695993] [PMCID: PMC7314356].

Qadri M, Jay GD, Zhang LX, Richendrfer H, Schmidt TA, ***Elsaid KA**. Proteoglycan-4 regulates fibroblast to myofibroblast transition and expression of fibrotic genes in the synovium. *Arthritis Res Ther*. 2020; 22(1):113:1-16. DOI: <https://doi.org/10.1186/s13075-020-02207-x>. [PMID: 32404156] [PMCID: PMC7222325].

Bousoik E, Qadri M, ***Elsaid KA**. CD44 receptor mediates crystal phagocytosis by macrophages and regulates inflammation in a murine peritoneal model of acute gout. *Sci. Rep*. 2020;10:5748:1-15. DOI: [10.1038/s41598-020-62727-z](https://doi.org/10.1038/s41598-020-62727-z). [PMID: 32238827] [PMCID: PMC7113258].

Zoghbi K, Bousoik E, *Parang K, ***Elsaid KA**. Design and biological evaluation of colchicine-CD44-targeted peptide conjugate in an *in vitro* model of crystal induced inflammation. *Molecules* 2020; 25, 45. DOI: [10.3390/molecules25010046](https://doi.org/10.3390/molecules25010046). [PMID: 31877739] [PMCID: PMC6982808].

Hurtig M, Zaghoul I, Sheardown H, Schmidt TA, Liu L, Zhang L, **Elsaid KA**, *Jay GD. Two compartment pharmacokinetic model describes the intra-articular delivery and retention of rhprg4 following ACL transection in the Yucatan mini pig. *J Orthop. Res.* 2019 Feb;37(2):386-396. DOI: [10.1002/jor.24191](https://doi.org/10.1002/jor.24191). [PMID: 30488470].

Qadri MM, Jay GD, Ostrom RS, Zhang LX, ***Elsaid KA**. cAMP attenuates TGF- β 's profibrotic responses in osteoarthritic synoviocytes: involvement of hyaluronan and PRG4. *Am J Physiol Cell Physiol.* 2018 Sep 1;315(3):C432-C443. DOI: [10.1152/ajpcell.00041.2018](https://doi.org/10.1152/ajpcell.00041.2018). [PMID: 29898378] [PMCID: PMC6171038].

Qadri M, Jay GD, Zhang LX, Wong W, Reginato AM, Sun C, Schmidt TA, ***Elsaid KA**. Recombinant human proteoglycan-4 reduces phagocytosis of urate crystals and downstream nuclear factor kappa B and inflammasome activation and production of cytokines and chemokines in human and murine macrophages. *Arthritis Res Ther.* 2018 Aug 29;20(1):192. DOI: [10.1186/s13075-018-1693-x](https://doi.org/10.1186/s13075-018-1693-x). [PMID: 30157934] [PMCID: PMC6116363].

Lefebvre AL, Zullo AR, Dapaah-Afryie R, Collins CM, ***Elsaid KA**. Outcomes of a pharmacist-managed clinic for underserved persons with unmanaged type 2 diabetes mellitus. *Journal of Pharmacy Practice and Research* 2018 Feb;48:65-71. DOI: [10.1002/jppr.1349](https://doi.org/10.1002/jppr.1349).

Qadri M, Almadani S, Jay GD, ***Elsaid KA**. Role of CD44 in regulating TLR2 activation of human macrophages and downstream expression of proinflammatory cytokines. *J Immunol* 2018 Jan;200(2):758-767. DOI: [10.4049/jimmunol.1700713](https://doi.org/10.4049/jimmunol.1700713). [PMID: 29196459] [PMCID: PMC5760314].

Alquraini A, Jamal M, Zhang L, Schmidt TA, Jay GD, ***Elsaid KA**. The autocrine role of proteoglycan-4 (PRG4) in modulating osteoarthritic synoviocyte proliferation and expression of matrix degrading enzymes. *Arthritis Res Ther* 2017 May;19(1):89. DOI: [10.1186/s13075-017-1301-5](https://doi.org/10.1186/s13075-017-1301-5). [PMID: 28482921] [PMCID: PMC5423025].

Larson KM, Zhang LX, **Elsaid KA**, Schmidt TA, Fleming BC, Badger GJ, *Jay GD. Reduction of friction by recombinant human proteoglycan-4 in IL-1 α stimulated bovine cartilage explants. *J Orthop Res* 2017 Mar;35(3):580-589. DOI: [10.1002/jor.23367](https://doi.org/10.1002/jor.23367). [PMID: 27411036].

***Elsaid KA**, Ubhe A, Shaman Z, D'Souza G. Intra-articular interleukin-1 receptor antagonist (IL-1Ra) microspheres for posttraumatic osteoarthritis: in vitro biological activity and in vivo disease modifying effect. *J Exp Orthop.* 2016 Dec;3(1):18. DOI: [10.1186/s40634-016-0054-4](https://doi.org/10.1186/s40634-016-0054-4). [PMID: 27539076] [PMCID: PMC4990523].

Alquraini A, Garguilo S, D'Souza G, Zhang LX, Schmidt TA, Jay GD, ***Elsaid KA**. The interaction of lubricin/proteoglycan 4 (PRG4) with toll-like receptors 2 and 4: an anti-inflammatory role of PRG4 in synovial fluids. *Arthritis Res Ther* 2015 Dec;17:353. DOI: [10.1186/s13075-015-0877-x](https://doi.org/10.1186/s13075-015-0877-x). [PMID: 26643105] [PMCID: PMC4672561].

Migliozzi D, Zullo A, Collins C, ***Elsaid KA**. Achieving blood pressure control among renal transplant recipients by integrating electronic health technology and clinical pharmacy services. *Am J Health Syst Pharm*. 2015 Nov;72(22):1987-92. DOI: [10.2146/ajhp140810](https://doi.org/10.2146/ajhp140810). [PMID: 26541954].

Al-Sharif A, Jamal M, Zhang LX, Larson K, Schmidt TA, Jay GD, ***Elsaid KA**. Lubricin/Proteoglycan 4 binding to CD44 receptor: A mechanism of the suppression of proinflammatory cytokine-induced synoviocyte proliferation by lubricin. *Arthritis Rheumatol* 2015 Jun;67(6):1503-13. DOI: [10.1002/art.39087](https://doi.org/10.1002/art.39087). [PMID: 25708025] [PMCID: PMC4446227].

***Elsaid KA**, Zhang L, Shaman Z, Patel C, Schmidt TA, Jay GD. The impact of early intra-articular administration of interleukin-1 receptor antagonist on lubricin metabolism and cartilage degeneration in an anterior cruciate ligament transection model. *Osteoarthritis Cartilage* 2015 Jan;23(1):114-21. DOI: [10.1016/j.joca.2014.09.006](https://doi.org/10.1016/j.joca.2014.09.006). [PMID: 25219670] [PMCID: PMC4275352].

McKaig D, Collins C, ***Elsaid KA**. Impact of reengineered electronic error-reporting system on medication event reporting and care process improvement at an urban medical center. *Jt Comm J Qual Patient Saf*. 2014 Sep;40(9):398-407. [PMID: 2525238].

Haslauer CM, **Elsaid KA**, Fleming BC, Proffen B, Johnson V, *Murray M. Loss of extracellular matrix from articular cartilage is mediated by the synovium and ligament after anterior cruciate ligament injury. *Osteoarthritis Cartilage* 2013 Dec;21:1950-7. DOI: [10.1016/j.joca.2013.09.003](https://doi.org/10.1016/j.joca.2013.09.003). [PMID: 24036379] [PMCID: PMC3917322].

***Elsaid KA**, Truong T, Monckberg M, McCarthy H, Butera J, Collins C. Impact of electronic chemotherapy order forms on prescribing errors at an urban medical center: results from an interrupted time-series analysis. *Int J Qual Health Care*. 2013 Dec;25(6):656-63. DOI: [10.1093/intqhc/mzt067](https://doi.org/10.1093/intqhc/mzt067). [PMID: 24132956].

*Beaulieu J, Fortin R, Palmisciano L, **Elsaid KA**, Collins C. Enhancing clinical decision support to improve appropriate antimicrobial use. *Am J Health Syst Pharm*. 2013 Jul;70(13):1103-4. DOI: [10.2146/ajhp120589](https://doi.org/10.2146/ajhp120589). [PMID: 23784157].

Waller K, Zhang LX, **Elsaid KA**, Fleming BC, Warman ML, *Jay GD. Role of lubricin and boundary lubrication in the prevention of chondrocyte apoptosis. *Proc Natl Acad Sci USA*. 2013 Apr;110(15):5852-7. DOI: [10.1073/pnas.1219289110](https://doi.org/10.1073/pnas.1219289110). [PMID: 23530215] [PMCID: PMC3625316].

***Elsaid KA**, Ferreira L, Truong T, Liang A, Machan J, D'Souza GG. Pharmaceutical nanocarrier association with chondrocytes and cartilage explants: influence of surface modification and extracellular matrix depletion. *Osteoarthritis Cartilage* 2013 Feb;21(2):377-84. DOI: [10.1016/j.joca.2012.11.011](https://doi.org/10.1016/j.joca.2012.11.011). [PMID: 23186944] [PMCID: PMC3556184].

***Elsaid KA**, Zhang L, Waller K, Tofte J, Teeple E, Fleming BC, Jay GD. The impact of forced joint exercise on lubricin biosynthesis from articular cartilage following ACL transection and intra-articular lubricin's effect in exercised joints following ACL transection. *Osteoarthritis Cartilage* 2012 Aug;20(8):940-8. DOI: [10.1016/j.joca.2012.04.021](https://doi.org/10.1016/j.joca.2012.04.021). [PMID: 22579916].

***Elsaid KA**, Collins C. initiative to improve thromboprophylactic enoxaparin exposure in hospitalized patients with renal impairment. *Am J Health Syst Pharm.* 2012 Mar;69(5):390-6. DOI: [10.2146/ajhp110319](https://doi.org/10.2146/ajhp110319). [PMID: 22345418].

Jay GD, **Elsaid KA**, Kelly KA, Anderson SC, Zhang L, Teeple E, Waller K, *Fleming BC. Prevention of cartilage degeneration and gait asymmetry by lubricin tribosupplementation in the rat following ACL transection. *Arthritis Rheum* 2012 Apr;64(4):1162-71. DOI: [10.1002/art.33461](https://doi.org/10.1002/art.33461). [PMID: 22127873] [PMCID: PMC3297696].

Collins C, ***Elsaid KA**. Using an enhanced oral chemotherapy computerized provider order entry system to reduce prescribing errors and improve safety. *Int J Qual Health Care.* 2011 Feb;23(1):36-43. DOI: [10.1093/intqhc/mzq066](https://doi.org/10.1093/intqhc/mzq066). [PMID: 21084323].

Teeple E, **Elsaid KA**, Jay GD, Zhang L, Badger GJ, Akelman M, Bliss TF, *Fleming BC. Effects of supplemental intra-articular lubricin and hyaluronic acid on the progression of posttraumatic arthritis in the anterior cruciate ligament-deficient rat knee. *Am J Sports Med* 2011;39(1):164-72. DOI: [10.1177/0363546510378088](https://doi.org/10.1177/0363546510378088). [PMID: 20855557] [PMCID: PMC3010331].

Jay GD, Fleming BC, Watkins BA, McHugh KA, Andersen SA, Zhang L, Teeple E, Waller K, ***Elsaid KA**. Prevention of cartilage degeneration and restoration of chondroprotection by lubricin tribosupplementation in the rat following ACL transection. *Arthritis Rheum* 2010 Aug;62(8): 2382-91. DOI: [10.1002/art.27550](https://doi.org/10.1002/art.27550). [PMID: 20506144] [PMCID: PMC2921027].

Wei L, Fleming BC, Sun X, Teeple E, Wu W, Jay GD, **Elsaid KA**, Luo J, Machan J, *Chen Q. Comparison of differential biomarkers of osteoarthritis with and without posttraumatic injury in the Hartley guinea pig model. *J Orthop Res* 2010 Jul;28(7):900-6. DOI: [10.1002/jor.21093](https://doi.org/10.1002/jor.21093). [PMID: 20108346] [PMCID: PMC2875364].

Elsaid KA, Machan JT, Waller K, *Fleming BC, *Jay GD. The impact of anterior cruciate ligament injury on lubricin metabolism and the effect of inhibiting tumor necrosis factor alpha on chondroprotection in an animal model. *Arthritis Rheum.* 2009 Oct;60(10):2997-3006. DOI: [10.1002/art.24800](https://doi.org/10.1002/art.24800). [PMID: 19790069] [PMCID: PMC2800051].

Elsaid KA, Fleming BC, Oksendahl HL, Machan JT, Fadale PD, Hulstyn MJ, Shalvoy R, *Jay GD. Decreased lubricin concentrations and markers of joint inflammation in the synovial fluid of patients with anterior cruciate ligament injury. *Arthritis Rheum.* 2008 Jun;58(6):1707-15. DOI: [10.1002/art.23495](https://doi.org/10.1002/art.23495). [PMID: 18512776] [PMCID: PMC2789974].

*Teeple E, **Elsaid KA**, Fleming BC, Jay GD, Aslani K, Crisco JJ, Mechrefe AP. Coefficients of friction, lubricin, and cartilage damage in the anterior cruciate ligament-deficient guinea pig knee. *J Orthop Res* 2008 Feb;26(2):231-237. DOI: [10.1002/jor.20492](https://doi.org/10.1002/jor.20492). [PMID: 17868097] [PMCID: PMC2792715].

Jay GD, Torres JR, Rhee DK, Helminen HJ, Hytinen MM, Cha CJ, **Elsaid KA**, Kim KS, Cui Y, *Warman ML. Association between friction and wear in diarthrodial joints lacking lubricin. *Arthritis Rheum* 2007 Nov;56(11):3662-9. DOI: [10.1002/art.22974](https://doi.org/10.1002/art.22974). [PMID: 17968947] [PMCID: PMC268668].

Elsaid KA, Jay GD, *Chichester CO. Reduced expression and proteolytic susceptibility of lubricin/superficial zone protein may explain early elevation in the coefficient of friction in the joints of rats with antigen-induced arthritis. *Arthritis Rheum* 2007 Jan;56(1):108-116. DOI: [10.1002/art.22321](https://doi.org/10.1002/art.22321). [PMID: 17195213].

Elsaid KA, Jay GD, Warman ML, Rhee DK, *Chichester CO. Association of articular cartilage degradation and loss of synovial fluid boundary lubricating ability following injury and inflammatory arthritis. *Arthritis Rheum* 2005 Jun;52(6):1746-1755. DOI: [10.1002/art.21038](https://doi.org/10.1002/art.21038). [PMID: 15934070].

Jay GD, **Elsaid KA**, Zack J, Robinson K, Trespalacois F, Cha CJ, *Chichester CO. Lubricating ability of aspirated synovial fluid from emergency department patients with knee joint synovitis. *J Rheum* 2004 Mar; 31(3): 557-564 [PMID: 14994405].

Elsaid KA, Jay GD, *Chichester CO. Detection of collagen type II and proteoglycans in the synovial fluids of patients diagnosed with non-infectious knee joint synovitis indicates early damage to the articular cartilage matrix. *Osteoarthritis Cartilage* 2003 Sep; 11(9): 673-680. [PMID: 12954238].

Invited Reviews:

***Elsaid KA**, Garguilo S, Collins CM. Chemotherapy e-prescribing: opportunities and challenges. *Integr Pharm Res Pract*. 2015 May 21;4:39-48. DOI: [10.2147/IPRP.S84232](https://doi.org/10.2147/IPRP.S84232). [PMID: 29354518] [PMCID: PMC5741026].

Teeple E, Jay GD, **Elsaid KA**, *Fleming BC. Animal models of osteoarthritis: challenges of model selection and analysis. *AAPS J*. 2013 Apr;15(2):438-46. DOI: [10.1208/s12248-013-9454-x](https://doi.org/10.1208/s12248-013-9454-x). [PMID: 23329424] [PMCID: PMC23675748].

Elsaid KA, *Chichester CO. Review: Collagen markers in early arthritic diseases. *Clinica Chimica Acta*. 2006 Mar;365(1-2):68-77. DOI: [10.1016/j.cca.2005.09.020](https://doi.org/10.1016/j.cca.2005.09.020). [PMID: 16257399].

Book Chapters:

Martin LM, **Elsaid KA**, Dorrington T, *Gómez-Chiarri M. (2001) Synthetic Studies on the Antimicrobial Activity of Pleurocidin. In: Lebl M, Houghton RA (eds) *Peptides: The Wave of the Future*. American Peptide Symposia, vol 7. Springer, Dordrecht. DOI: https://doi.org/10.1007/978-94-010-0464-0_219.

Manuscripts Under Review:

Qadri M, Zhang LX, Jay GD, Schmidt TA, Totonchy J, ***Elsaid KA**. Proteoglycan-4 regulates synovial macrophage polarization and suppresses inflammatory macrophage joint infiltration. Submitted to *Arthritis Research & Therapy*, April 2021.

Invited Talks:

Proteoglycan 4 (PRG4): A multifaceted Glycoprotein in Articular Joint Homeostasis. Graduate Seminar, Kobe Pharmaceutical University (KPU), Kobe, Japan, June 2014.

Lubricin/PRG4: A multifaceted proteoglycan with potential disease-modifying anti-osteoarthritis effects. Sigma Xi Induction Ceremony Keynote Speech, Boston, MA, April 2012.

Intra-articular injection (tribosupplementation) with native and recombinant lubricin (PRG4) prevents cartilage degeneration in the rat ACL injury model. Segal Network on Osteoarthritis Workshop (SNOW), Chicago, IL, October 2009.

Selected Peer-Reviewed Abstracts:

Sandy Elsayed, Gregory Jay, Ralph Cabezas, Marwa Qadri, Tannin A. Schmidt, and **Khaled A. Elsaid**. Recombinant Human Proteoglycan-4 Regulates Phagocytic Activation of Monocytes and Reduces IL-1 β Secretion by Urate Crystal Stimulated PBMCs. Oral and Poster Presentations, Experimental Biology 2021 Virtual Annual Meeting, April 2021.

Richard Beuttler, Siu-Fun Wong and **Khaled A. Elsaid**. Quality of Undergraduate Education and its Relationship to the Didactic Performance in a Pharm.D. program. Poster Presentation, AACP 2020 Annual Meeting, Virtual Meeting.

Sandy Elsayed, Marwa Qadri and **Khaled A. Elsaid**. Fingolimod (FTY720) activates protein phosphatase-2A in human monocytes and inhibits uric acid crystal-induced interleukin-1 β production. Oral and Poster Presentations, Experimental Biology 2020 Annual Meeting, San Diego, April 2020 (Physical meeting cancelled due to Covid-19 pandemic).

Emira Bousoik and **Khaled A. Elsaid**. CD44-targeted monoclonal antibody is anti-inflammatory in an in vivo model of monosodium urate crystal induced peritonitis. Experimental Biology 2020 Annual Meeting, San Diego, April 2020 (Physical meeting cancelled due to Covid-19 pandemic).

Marwa Qadri, Gregory Jay, Tannin Schmidt, **Khaled A. Elsaid**. Proteoglycan-4 inhibits fibroblast to myofibroblast transition and migration in response to TGF- β in a fibroblast and macrophage co-culture model. Moderated Poster Presentation, Orthopaedic Research Society 2020 Annual Meeting, February 2020.

Khaled A. Elsaid and Siu-Fun Wong. Feasibility of Longitudinal Assessment of the Pharmacist Patient Care Process in the Didactic Curriculum and its Relationship to APPE Performance. Poster Presentation, AACP 2019 Annual Meeting, Chicago, July, 2019.

Khaled A. Elsaid, Rocke DeMark, Siu-Fun Wong. Use of Multisource Assessments to Identify At-Risk Students. Poster Presentation, AACP 2019 Annual Meeting, Chicago, July, 2019.

Emira Bousoik and **Khaled A. Elsaid**. CD44 Receptor Mediates Uptake of Uric Acid Crystals by Macrophages: Impact of Antibody-Mediated Receptor Shedding on NLRP3 Inflammasome Activation and Interleukin-1 β Production. Poster Presentation, The FASEB Journal 33 (1_Supplement), 505.6.

Marwa Qadri, Gregory Jay, Ling Zhang, Tannin Schmidt, **Khaled Elsaid**. Proteoglycan-4 Inhibits TGF- β Induced Differentiation of Synovial Fibroblasts into Myofibroblasts in a CD44-Dependent Manner. Moderated Poster Presentation, Orthopaedic Research Society 2019 Annual Meeting, February 2-5th, Austin, TX.

Marwa Qadri, Ling Zhang, Rennolds Ostrom, Gregory Jay, **Khaled A. Elsaid**. cAMP regulates fibrosis of osteoarthritic synovial fibroblasts: role of proteoglycan-4 (PRG4). Podium Presentation, Orthopaedic Research Society Meeting, New Orleans, LA, March, 2018.

Marwa Qadri, Rennolds Ostrom, **Khaled A. Elsaid**. Activation of Adenylyl Cyclase Reduces TGF-beta Profibrotic Response in Osteoarthritic Fibroblast-Like Synoviocytes. *Osteoarthritis and Cartilage* 2017;25:S274-S275. Poster Presentation, Osteoarthritis Research Society International (OARSI) Annual Meeting, Las Vegas, NV, April, 2017.

Sara Almadani, Ali Alquraini, Marwa Qadri, Gregory Jay, **Khaled A. Elsaid**. Hyaluronan inhibits toll-like receptor-2 activation and interleukin-1 expression in human macrophages in a CD44-dependent manner. Poster Presentation, Orthopaedic Research Society Meeting, San Diego, CA, March, 2017.

Ali Alquraini, Tannin Schmidt, Gregory Jay, **Khaled A. Elsaid**. Recombinant Human Proteoglycan 4 Modulates Expression of Pro-inflammatory Cytokines and Matrix Degrading Enzymes in Unstimulated and Interleukin-1 Stimulated Osteoarthritis Fibroblast-like Synoviocytes. Podium Presentation, Orthopaedic Research Society Meeting, San Diego, CA, March, 2017.

Maha Jamal, Ali Alquraini, Tannin Schmidt, Gregory Jay, **Khaled A. Elsaid**. Lubricin/proteoglycan-4 (PRG4) inhibits interleukin-1 Beta (IL-1 β) induced nuclear factor kappa B (NF κ B) activation and Proliferation of osteoarthritic synoviocytes in A CD44-dependent manner. Podium Presentation, Orthopaedic Research Society (ORS) Annual Meeting, Orlando, FL, March 2016.

Maha Jamal, Tannin Schmidt, Gregory Jay, **Khaled A. Elsaid**. Lubricin/proteoglycan 4 binding to cluster determinant-44 (CD 44) receptor and the contribution of the central mucin domain glycosylations. Poster Presentation, Orthopaedic Research Society (ORS) Annual Meeting, Las Vegas, NV, March 2015.

Afnan Al-Sharif, Tannin Schmidt, Gregory Jay, **Khaled A. Elsaid**. Lubricin/proteoglycan-4 inhibits proinflammatory cytokine induced synoviocyte proliferation via CD44-interaction. Poster Presentation, Orthopaedic Research Society (ORS) Annual Meeting, Las Vegas, NV, March 2015.

Katherine Larson, Gregory Jay, Braden Fleming, Tannin Schmidt, **Khaled A. Elsaid**. Restoration of chondroprotection by rhPRG4 in IL-1 α stimulated cartilage explants. Poster Presentation, Orthopaedic Research Society (ORS) Annual Meeting, Las Vegas, NV, March 2015.

Katherine Larson, **Khaled A. Elsaid**, Gregory Jay. Tribology of IL-1 Stimulated Cartilage Explants: Restoration of Chondroprotection by rhPRG4. Poster Presentation, Biomedical Engineering Society Annual Meeting, Tampa, FL, October 2014.

Afnan Al-Sharif, Maha Jamal, Tannin Schmidt, Gregory Jay, **Khaled A. Elsaid**. Binding Affinity of Recombinant Human Proteoglycan 4 (rhPRG4) to CD 44 Receptors and Its Relationship to Inhibition of Interleukin-1 Beta Induced Fibroblast-like Synoviocyte Proliferation. Poster Presentation, AAPS-NERDG, Farmington, CT, May 2014.

Khaled A. Elsaid, Ziad Shaman, Ling Zhang, Chandni Patel, Gregory Jay. The Impact of Early Intra-Articular Interleukin-1 Alpha Receptor Antagonist (IL-1 ra) Administration on Lubricin's Biosynthesis and Levels Following Anterior Cruciate Ligament Injury in the Rat. Poster Presentation, Orthopaedic Research Society (ORS) Annual Meeting, New Orleans, LA, March 2014.

Khaled A. Elsaid, Lisa Ferreira, Trang Truong, Gerard D'Souza. Influence of Surface Modification with a Cell Penetrating Peptide on Chondrocyte Uptake of Liposomes and Micelles. Poster Presentation, Orthopaedic Research Society (ORS) Annual Meeting, San Antonio, TX, January 2013.

Khaled A. Elsaid, Ling Zhang, Waller, K; Fleming BC; Jay GD. The Chondroprotective Effect of a Single-Dose Lubricin Tribosupplementation Following ACL Transection and Strenuous Exercise in the Rat. Podium Presentation, Orthopaedic Research Society (ORS) Annual Meeting, San Francisco, CA, February 2012.

Khaled A. Elsaid, Lisa Ferreira, Amy Liang, Gerard D'Souza. Micellar and liposomal pharmaceutical nanocarrier association with articular cartilage using an in-vitro model. Poster Presentation, Orthopaedic Research Society Meeting, San Francisco, CA, February 2012.

Khaled A. Elsaid, Ling Zhang, Braden Fleming, Erin Teeple, Kimberly Waller, Gregory Jay. Forced Joint Mobilization Reduces Lubricin Biosynthesis from Cartilage and Increases Cartilage Degeneration in the Rat ACL Injury Model. Poster Presentation, Orthopaedic Research Society Meeting, Long Beach, CA, January 2011.

Khaled A. Elsaid, Braden Fleming, Brian Watkins, Katherine McHugh, Scott Andersen, Ling Zhang, Erin Teeple, Kimberly Waller, Gregory Jay. Tribosupplementation with native lubricins (PRG4) and recombinant lubricin prevents cartilage degeneration and lowers urinary CTXII in the rat ACL injury model. Podium Presentation, Orthopaedic Research Society Meeting, New Orleans, LA, March 2010.

Khaled A. Elsaid, Braden Fleming, Gregory Jay. Comparison of early and late inhibition of TNF α in restoring Chondroprotection by lubricin in the ACL transection injury model. Podium Presentation, Orthopaedic Research Society Meeting, Las Vegas, NV, March, 2009.

Patents:

PRG4 for Treating Gout and Its Symptoms.
Jay GD, Elsaid KA. Pub. No.: US 2018/0161393 A1.

Use of PRG4 as an anti-inflammatory agent.
Jay GD, Sullivan BD, Schmidt T, Elsaid KA, Krawetz R, Chodobska J, Chodobska A, Fareed J. Pub. No.: US 2018/0015141A1.

Treating and Prevention of joint diseases
Jay GD and Elsaid KA. Pub. No.: US 20090204148A1.

Methods of Treatment for Injured or Diseased Joints
G. D. Jay and K. A. Elsaid. Pub. No. US 2008013948A1.

TEACHING AND MENTORSHIP

a. Teaching Experience (Chapman University)

Course Coordinator:

Program: Doctor of Pharmacy

2017-Present PHRM 546 Integrated Therapeutics: Gastroenterology (4 Cr; offered annually in the Spring Trimester)

Topics: Pathophysiology and pharmacology of drugs used in management of N&V, GERD, PUD, IBS, IBD, Pancreatitis and Complications of Liver Cirrhosis (22 contact hours).

2017-Present PHRM 535 Integrated Therapeutics: Dermatology and Rheumatology (2 Cr; offered annually in the Summer Trimester)

Topics: Pathophysiology and pharmacology of drugs used in management of OA, RA, Gout, Atopic Dermatitis and Psoriasis (10 contact hours).

2017-Present PHRM 561 Integrated Therapeutics: Oncology (4 Cr, offered annually in the Summer Trimester)

Topics: Oncogenesis, pharmacology of conventional antineoplastic agents, targeted therapeutics and immunotherapy (15 contact hours).

2017-Present PHRM 763 Selected Topics in Basic and Clinical Toxicology (1 Cr, offered annually in the Spring Trimester)

Topics: Molecular basis of toxicology, mechanism of toxicity and clinical management of acetaminophen, aspirin, CCBs, Beta Blockers and Local Anesthetics (14 contact hours).

b. Teaching Experience (MCPHS University)

Course Coordinator/Principal Faculty:

Program: BS in Pharmacology and Toxicology

2011-2015 Toxicology I (3 Cr; offered annually in the Fall-400 Level)

Topics: Mechanisms of toxicity, toxicokinetics and genomics, carcinogenesis, mutagenicity and selected systems-based toxicity.

2011-2015 Analytical Methods in Pharmacology and Toxicology (3 Cr. Lab; offered annually in the Fall-300 Level).

Topics: ELISA, cell-based assays, gel electrophoresis.

2012-2015 Pharmacology and Toxicology Seminar II (1 Cr; offered annually in the Spring-400 Level).

Topics: Journal club discussions of contemporary research in biomedical sciences

2012-2015 Pharmacology and Toxicology Seminar III (1 Cr; offered annually in the Fall-400 Level).

Topics: Journal club discussions of contemporary research in biomedical sciences

Program: MS and PhD in Pharmacology

2011-2015 Advanced Pharmacology: Anticancer and immunomodulatory drugs (3 Cr; offered annually in the Fall-800 Level)

Topics: Pharmacology immunotherapy, pharmacology of disease-modifying biologics

Program: MS in Physician Assistant Studies

2010-2013 Clinical Pharmacology I (3Cr; offered annually in the Fall-500 Level)

2011-2014 Clinical Pharmacology II (3 Cr; offered annually in the Spring-500 Level)

Participating Faculty:

Program: Doctor of Pharmacy

2009-2016 Pharmacology I (4 Credits; offered annually in the Fall-P2)

Topics: Pharmacology of calcium channel blockers, pharmacology of renin-angiotensin-aldosterone inhibitors, diuretics and anti-hyperlipidemias.

2010-2016 Pharmacology II (4 Credits; offered annually in the Spring-P2)

Topics: Sedative/hypnotics, anti-epileptics, muscle relaxants, general anesthetics, anti-cancer drugs.

2015-2016 Physiology and Pathophysiology I (4 Credits; offered annually in the Fall-P1)

Topics: Physiology and pathophysiology of the G.I. system.

2011-2014 Research Methods (2 Credits; offered annually in the spring-P1)

Topics: Biostatistics.

Program: MS and PhD in Pharmacology

2010-2012 Principles of Pharmaceutical Sciences

Topics: Methods of protein expression, isolation and quantification

c. Mentorship (Undergraduate and Professional Students) (MCPHS University)

Pharm.D. Honors Program (MCPHS University):

Sept. 2014-May 2016: Steven Garguilo, Pharm.D. (May 2016)

Sept. 2013-May 2015: Chandni Patel, Pharm.D. (May 2015)

Summer Undergraduate Research Fellowship (SURF) (MCPHS University):

May 2012-July 2012: Chandni Patel, Pharm.D (May 2015)

May 2011-July 2011: Trang Truong, Pharm.D (May 2015)

Undergraduate Research Internship (MCPHS University):

Jan 2014-May 2014: Sachit Vaydaya, BS in Pharmacology and Toxicology (May 2014)

d. Mentorship (Graduate Students)

Chapman University

Ph.D. in Pharmaceutical Sciences

Sep. 2020-Present: Sandy ElSayed

Title: TBD

Sep. 2016-Dec. 2020: Marwa Qadri

Title: Synovial Fibrosis in Osteoarthritis of the Knee: Mechanism of Development and Potential Therapeutic Targets.

Sep. 2017-August 2020: Emira Bousoik

Title: Role of CD44 Receptor in The Pathogenesis of Gouty Arthritis

M.S. in Pharmaceutical Sciences

Sept. 2018-May 2020: Sandy ElSayed

Title: Role of Protein Phosphatase-2A in Regulating Monocyte Activation by Soluble and Crystalline Uric Acid in Gout

MCPHS University

MS in Pharmacology

May 2015-May 2016: Marwa Qadri

Title: Monosodium Urate Crystal (MSU)-induced Inflammation: Biological Role of Proteoglycan-4.

Sep. 2015-Jun. 2016: Erika Lima

Title: Cytoprotective Effects of Heat Shock Protein-27 (HSP27) in A Model of Rotenone-induced Cytotoxicity.

Sep. 2013-Sept. 2015: Maha Jamal

Title: Modulation of Interleukin-1 beta (IL-1 β) Induced Proliferation of Osteoarthritic Fibroblast-like Synoviocytes by Proteoglycan-4: A Mechanistic Study.

Dec. 2013-Dec. 2014: Afnan Al-Sharif

Title: The Functional Consequence of Recombinant Human Proteoglycan 4 Interaction with CD44 Receptor on Pro-Inflammatory Cytokine Mediated Fibroblast-like Synoviocyte Proliferation.

Sep. 2010-May 2013: Ziyad Shaman

Title: Disease Modifying Anti-Osteoarthritis Effect of Interleukin-1 Receptor Antagonist and the Impact of PLGA Encapsulation in the Rat Anterior Cruciate Ligament Transection Model.

Ph.D. in Pharmacology:

Sep. 2014-May 2018 Ali Alquraini

Title: The Interaction of Proteoglycan-4 and The Toll-like Receptors As The Basis For a Disease-Modifying Activity in Osteoarthritis.

e. Graduate Thesis Advising and Committees

Chapman University

2017-2020

Committee Member, Ms. Romina Nabiee

Program: Ph.D. in Pharmaceutical Sciences

2017-2019

Committee Member, Mr. Francisco Nunez

Program: Master of Science in Pharmaceutical Sciences

2017-2019

Committee Member, Mr. Khalid Zhogbi

Program: Master of Science in Pharmaceutical Sciences

2018-2020

Committee Member, Mr. Saleh Alfuraih

Program: Master of Science in Pharmaceutical Sciences

MCPHS University

2014-2016

Committee Member, Ms. Azhaar Alturkistani

Program: Ph.D. in Pharmacology, MCPHS University

2014-2016

Committee Member, Ms. Katherine Larson

Program: Ph.D. in Bioengineering, Brown University

2014-2016

Committee Member, Mr. Anand Ubhe

Program: Ph.D. in Pharmaceutics and Drug Delivery, MCPHS University

2014-2015

Committee Member, Ms. Natalie Sroda

Program: MS in Pharmacology, MCPHS University

2011-2013

Committee Member, Ms. Kimberly Waller

Program: Ph.D. in Bioengineering, Brown University

2011-2013

Committee Member, Mr. Faisal Alkholifi

Program: MS in Pharmacology, MCPHS University

2010-2012

Committee Member, Ms. Lisa Ferreira

Program: MS in Pharmaceutics and Drug Delivery, MCPHS University

HONORS/AWARDS

2017 AACP Teacher of the Year

2014 Fain Quality Award, Lifespan Corporation, Providence, RI

2014 Phi Kappa Phi Honor Society, Faculty Inductee

2011 Summer Undergraduate Research Fellowship (SURF) Mentor Excellence Award, MCPHS University

2011 Faculty Research/Scholarship Award, MCPHS University

2011 Rho Chi Pharmaceutical Honor Society, Faculty Inductee

2010 Sigma Xi Honor Society, Faculty Inductee

2008 Clinical Research Award, Annual Research Celebration, Rhode Island Hospital

2003 Dr. Young So Choi Graduate Scholarship Award, University of Rhode Island

LICENSURE/CERTIFICATIONS

Rhode Island (RPH 04575)

California (RPH 62437)

Board Certified Pharmacotherapy Specialist (BCPS; December 2007-December 2014)

Board Certification in Oncology Pharmacy (BCOP; December 2008-December 2015)

PROFESSIONAL SERVICE

Chapman University Committee Assignments/Leadership Roles

2020	Faculty Development Council
2020	Associate Deans of Assessment, Student Success and Industry Relations Search Committee, Member
2019-Present	Faculty Opportunity Fund, Grant Reviewer
2019-Present	Faculty Review Committee (FRC), Member
2019-2020	Self-Study Steering Committee, Co-Chair
2019-Present	Assessment Committee, Member
2018-2021	Office of Assessment, Director (10% effort)
2018-2020	Dean's Council Committee, Member
2018-2020	Graduate Programs and Research Committee, Chair
2017-2018	Academic Affairs Committee, Chair
2016-2017	Item Review Committee, Chair
2016-2017	Academic Affairs Committee, Member
2017-2018	ACPE Self Study Steering Committee, Member
2017-2018	Graduate Programs and Research Committee, Member

MCPHS University Committee Assignments/Leadership Roles

Department of Pharmaceutical Sciences, Boston:

2015	Faculty Search Committee in Pharmacology and Toxicology, Chair
2013	Faculty Search Committee in Pharmacology and Toxicology, Member
2012	Faculty Search Committee in Pharmaceutical Economics and Policy, Member
2011-2016	Program Director, Ph.D. in Pharmacology
2011-2015	Graduate Admission Committee, Chair
2011	Faculty Search Committee in Pharmaceutical Economics and Policy, Member

School of Pharmacy, Boston:

2014-2016	Graduate Curriculum Committee, Chair
2013-2016	Assessment Committee, Member
2013-2016	Honors Program 5 th year Seminar Coordinator

2013-2015 Curriculum Committee, Secretary
 2015-2016 Curriculum Committee, Chair
 2012-2016 Written Qualifying Examination, Member
 2012-2013 Curriculum Committee, Member
 2011-2014 Doctor of Pharmacy Transfer Admission Committee, Member
 2011-2016 Self-study/Accreditation Committee, Member
 2011-2012 NAPLEX Area 3 Competency Task Force, Member
 2009-2013 Academic Standing Committee, Member

MCPHS University:

2014-2015 Faculty Development Committee
 2012-2013 Faculty Senate, Member
 2009-2010 Campus Safety Committee, Member

b. Professional Activities/Membership

2020 Mentor, AACP Biological Section Mentorship Program.
 2020 Promotion Dossier Referee, Associate Professor Promotion, Hail University, Hail, Saudi Arabia.
 2019 Guest Editor, Special Issue (Recent Advances in Proteoglycans), Biomolecules, June 2020.
 2018-2019 Academic Leadership Fellows Program, AACP.
 2018-2020 Grant proposal reviewer, SPIRE Program, Department of Veterans Affairs Office of Research.
 2016-Pres. Grant proposal reviewer, Orthopaedic Research and Education Foundation (OREF).
 2009-Pres. Abstract Reviewer, Osteoarthritis Research Society International (OARSI).
 2011-Pres. Abstract Reviewer, Orthopaedic Research Society (ORS).
 2012-2016 Grant proposal reviewer, Qatar National Research Foundation.
 2017-Pres. Oral presentation session moderator, Orthopaedic Research Society (ORS) Annual Meeting.

Ad-hoc Reviewer:

Tissue Engineering
Journal of Orthopaedic Research
Journal of Experimental Orthopedics
Osteoarthritis & Cartilage
Arthritis & Rheumatology
Arthritis Research and Therapy
American Journal of Sports Medicine
American Journal of Health-System Pharmacy
PLoS One
Scientific Reports
British Journal of Pharmacology
Proceedings of the National Academy of Science (PNAS)

Civil and Social organizations:

2017-Present Kappa Psi Pharmaceutical Fraternity, Chapter Member

2014-2016 Vice President, Phi Kappa Phi Honor Society, MCPHS University Chapter

Updated: May 2021.