

DANIEL I. ISAAC, D.O., M.S.
Division of Hematology/Oncology
Department of Medicine
College of Human Medicine
Michigan State University
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EDUCATION

Edward Via College of Osteopathic Medicine, Blacksburg, VA
Doctor of Osteopathic Medicine, June 2013

Michigan State University, East Lansing, Michigan
Masters of Science in Engineering Mechanics, May 2009
Advisor: Dr. Roger Haut, Ph.D.

Thesis Title: *Investigations on the response of knee joint cartilage to blunt impact in a small animal model.*

Michigan State University, East Lansing, Michigan
Bachelors of Science, Mechanical Engineering, May 2007

POST-DOCTORAL TRAINING

Michigan State University College of Human Medicine, East Lansing, MI
Hematology/Oncology Fellowship, 2016-2019

Oakland University/William Beaumont Hospital
Internal Medicine Residency, 2013-2016

BOARD CERTIFICATIONS & LICENSES

- AMERICAN BOARD OF INTERNAL MEDICINE, MEDICAL ONCOLOGY (2019)
 - AMERICAN BOARD OF INTERNAL MEDICINE, HEMATOLOGY (2019)
 - AMERICAN BOARD OF INTERNAL MEDICINE, INTERNAL MEDICINE (2016)
 - STATE OF MICHIGAN LICENSE (2016 – PRESENT)
 - STATE OF MICHIGAN CONTROLLED SUBSTANCE (2016 – PRESENT)
 - DRUG ENFORCEMENT AGENCY CONTROLLED SUBSTANCE (2016 – PRESENT)
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HONORS AND AWARDS

- McLaren Greater Lansing Excellence in Academics Award (2019)
 - Nikolay Dimitrov Outstanding Hematology/Oncology Fellow of the Year Award (2019)
 - Chief Fellow, Michigan State University Hematology/Oncology Fellowship (2017-2019)
 - Intern of the Year, William Beaumont Hospital, Royal Oak, MI (2014)
 - Intern of the Month, William Beaumont Hospital, Royal Oak, MI (2013)
 - National Medical Student Abstract Competition Winner, American College of Physicians (2013)
 - Medical Student of the Year, Edward Via College of Osteopathic Medicine (2012)
 - Sigma Sigma Phi National Osteopathic Medical Honors Society (2010)
 - Educational Opportunity Fellowship, Michigan State University Graduate College (2008)
 - Graduate Student Research Fellowship, Michigan State University (2007)
 - Graduate Student Teaching Fellowship, Michigan State University (2007)
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EXPERIENCE & APPOINTMENTS

Michigan State University College of Human Medicine

Aug 2019-present

Assistant Professor, Division of Hematology/Oncology, Department of Medicine

Michigan State University College of Human Medicine

Jul 2016-Jun 2019

Clinical Instructor, Department of Medicine

Michigan State University College of Engineering

Jan 2009-May 2009

Course Instructor, Department of Mechanical Engineering

- Course instructor for senior design course in mechanical engineering.
- Created syllabus and grading rubric
- Organized student senior design competition

Michigan State University College of Engineering

Aug 2007-Dec 2009

Graduate teaching assistant, Department of mechanical engineering

- Instructed laboratory for *Strength of materials* course

Michigan State University College of Engineering

Aug 2007-Dec 2009

Graduate research assistant, Orthopedic Biomechanics Laboratory

Advisor: Dr. Roger Haut, Ph.D.

- Investigation of acute and chronic injury response of articular cartilage
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GRANTS & AWARDS

1. PARP Inhibitor Nanoimmunotherapy for Breast Cancer. Principle investigator: Karen Liby, Ph.D. National Institute of Health Research Grant Program (R01). Role: Consultant. *In review.*

2. Sustained delivery of PARP Inhibitors for Chemotherapy. Principle investigator: Karen Liby, Ph.D. Small Business Technology Transfer programs (STTR). Role: Consultant. *In review*
3. Pb-214 Generator for Alpha-Therapy of Ovarian Cancers. Principle investigator: Kurt Zinn D.V.M, Ph.D., Small Business Innovation Research (SBIR) programs. Role: Co-investigator (10%). *In review*

PUBLICATIONS/PROFESSIONAL PRESENTATIONS

To B, **Isaac D**, Andrechek E. Studying lymphatic metastasis in breast cancer: current models, strategies and clinical perspectives. *J Mam Gland Biol Neopl*. 2020. <https://doi.org/10.1007/s10911-020-09460-5>

Mosalem O, Abu Rous F, Elshafie A, **Isaac D**. Bilateral breast masses as a presentation for T-cell acute lymphoblastic leukemia. *BMJ*. 2020; 13(8). PMID: 32847887.

Njomen E, Lansdell TA, Benham V, Bernard MP, Yang Y, Schall PZ, **Isaac DI**, et al. 20S proteasome enhancement targets c-MYC and induces *in vivo* anti-tumor efficacy. *bioRxiv* 2020.08.24.265470; doi: <https://doi.org/10.1101/2020.08.24.265470>

Isaac D. Avelumab maintenance therapy improves survival in metastatic urothelial carcinoma (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2020; 383:1218-1230.

Alsubait S, Isaac D. Oral reglugolix yields superior testosterone suppression and decreased cardiovascular events compared with GnRH agonist (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2020; 27(4):153-156.

Isaac D. Pembrolizumab plus neoadjuvant chemotherapy improves pathologic complete response rates in triple negative breast cancer (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2020; 27(2):53-55.

Souther B, Isaac D. Cabazitaxel improves progression-free and overall survival in metastatic prostate cancer after progression on abiraterone or enzalutamide. (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2020; 27(2):e1-e3.

Isaac D. Combination encorafenib, cetuximab and binimetinib improves survival in BRAF V600E-mutate metastatic colon cancer (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2019.

Isaac D. Enzalutamide improves progression-free and overall survival in metastatic hormone-sensitive prostate cancer (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2019.

Isaac D. Combination of ibrutinib and rituximab prolongs progression-free survival in Waldenstrom Macroglobulinemia. (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2018.

Isaac D. Adjuvant pembrolizumab improves progression-free survival in stage III melanoma (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2018.

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Isaac D. CAR T-cell therapy shows high levels of durable response in refractory large B-cell lymphoma (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2018; 24(8).

Isaac D, Karapetyan L, Tamkus D. Association of germline PALB2 mutation and response to platinum-based chemotherapy in metastatic breast cancer: a case series. *Journal of Clinical Oncology – Precision Oncology*. 2018(2): 1-5.

Isaac D. Brentuximab vedotin with chemotherapy improves progression-free survival in advanced-stage Hodgkin's lymphoma (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2018;25(2): 57-59.

Isaac D. Addition of durvalumab after chemotherapy improves progression-free survival in unresectable stage III non-small cell lung cancer (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2018;25(1): 5-7.

Yadav S, Ladkany R, Yadav D, Alhalabi O, Khaddam S, **Isaac D,** Cardenas PY, Zakalik D. Impact of BRCA mutation status on survival of women with triple-negative breast cancer. *Clin Breast Cancer*. 2017;DOI: <https://doi.org/10.1016/j.clbc.2017.12.014>

Isaac D, Elayoubi J, Almohammadi A, Dimitrov NV. Some aspects of cancer biomarkers and their clinical application in solid tumors – revisited. *J Cancer Res Ther*. 2017;5(6):34-39.

Isaac D. Surveillance colonoscopy after screening polypectomy reduces colorectal cancer incidence in intermediate-risk patients (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2017;24(8):1-3.

Isaac D. Clinical benefits of exercise and psychological intervention in patients with cancer-related fatigue (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2017; 24(5):200-202.

Isaac D. Combination therapy with ribociclib improves progression-free survival in advanced breast cancer (Outcomes Research in Review). *Journal of Clinical Outcomes Management*. 2016; 23(12): 539-540.

Fawole AA, Ogunleye FN, Rana J, **Isaac DI,** Ibrahim M, Huben MT, Wasvary H, Anderson JM, Gaikazian SS, Zakalik D, Robertson JM, Jaiyesimi IA. Colorectal cancer in patients 50 years and younger: The Beaumont Health System experience. *Journal of Clinical Oncology*. 2015, 33(15 suppl): e14583. Pub Status: Published.

Ladkany R, Marinos A, Pereira-Rodrigues O, Khaddour L, **Isaac DI,** Yadav S, Zakalik D. Trends in the incidence and survival of ovarian cancer: An analysis of the SEER database. *Journal of Clinical Oncology*. 2015, May; 33(15 suppl): e16587. Pub Status: Published.

Isaac DI, Golenberg N, Haut RC. Acute repair of chondrocytes using P188 surfactant in the rabbit tibiofemoral joint following blunt impact. *Journal of Orthopaedic Research*. 2010, Apr; 28(4): 553-558. Cited in PubMed; PMID: 19877289. Pub Status: Published.

Isaac DI, Meyer EG, Haut RC. Chondrocyte damage and contact pressures following impact on the rabbit

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tibiofemoral joint. *Journal of Biomechanical Engineering*. 2008, Aug; 130(4): 041018. Cited in PubMed; PMID: 18601460. Pub Status: Published.

Isaac DI, Meyer EG, Haut RC. Development of a traumatic anterior cruciate ligament and meniscal rupture model with a pilot in vivo study. *Journal of Biomechanical Engineering*. 2010, Jun; 132(6): 064501. Cited in PubMed; PMID: 20887035. Pub Status: Published.

Isaac DI, Meyer EG, Kopke KS, Haut RC. Chronic changes in the rabbit tibial plateau following blunt trauma to the constrained tibiofemoral joint. *Journal of Biomechanics*. 2010, Jun; 43(9): 1682-1688. Cited in PubMed; PMID: 20399435. Pub Status: Published.

Killian ML, **Isaac DI**, Haut RC, Dejardin LM, Leetun D, Donahue DL. Traumatic anterior cruciate ligament tear and its implications on meniscal degradation: A preliminary novel lapine osteoarthritis model. *Journal of Surgical Research*. 2010, Dec 164(2): 234-241. Cited in PubMed; PMID: 19577765. Pub Status: Published.

Abstracts & Professional presentations:

Sharma MR, **Isaac D**, Ramaekers R, et al. Expanded access program of the PLK1 inhibitor onvansertive for treatment of patients with KRAS-mutant metastatic colorectal cancer. **AACR (2020)**. *In review*.

Big Ten Cancer Research Consortium Grand Rounds. *Deciphering Metabolic Reprogramming in Metastasis*. September 10, 2020.

Isaac DI, Mertens A, Bozyk P. It's Not All in the Numbers: An Unusual Presentation of Pulmonary Leukostasis in Acute Myelocytic Leukemia. American College of Physicians National Conference, Washington, DC. May 2016.

Isaac DI, Jaiyesimi I, Bennani N. Hepatitis Associated Aplastic Anemia. American College of Physicians Associates Day Conference, Troy, MI. May 2015

Yadav S, **Isaac DI**, Zakalik D. Male Breast Cancer Receptor Sub-Types: Demographics, Tumor Characteristics and Short Term Survival Outcomes. European Society for Medical Oncology, IMPAKT Breast Cancer Conference, Brussels, Belgium, 2015.

Isaac DI, Yadav S, Bennani-Baiti N, Cosner DE. Renal Cell Carcinoma Metastasis to the Thyroid: How Long is Long Enough? American College of Physicians Michigan Chapter Annual Scientific Meeting, Gaylord, MI, 2014

Isaac DI, Shamoun T. A Rare Cause of an Enlarging Neck Mass. American College of Physicians Associates Day Conference, Sterling Heights, MI, 2014

Isaac DI, Kassier A, Sule A, Bukovec F. West Nile Virus Associated Flaccid Paralysis. American College of Physicians Internal Medicine National Conference. San Francisco, CA, 2013

Meyer EG, **Isaac DI**, Haut Donahue TL, Dejardin LM, Haut RC. Comparisons of the Joint Response to Surgical Transection and Traumatic Rupture of the ACL in a Rabbit Model. American Society of Mechanical Engineers Summer Bioengineering Conference. Famington, Pennsylvania 2011.

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Isaac DI, Meyer EG, Kepich E, Haut RC. Acute Chondrocyte Damage and Chronic Changes in the Rabbit Tibiofemoral Joint after Impact. 54th Annual Meeting of the Orthopaedic Research Society, Accepted for Presentation.

Killian MK, Lepinski NM, Haut RC, **Isaac DI**, Haut-Donahue TL. In Vivo Changes in Glycosaminoglycan Content in Knee Meniscal Tissue Following Traumatic Injury. 55th Annual Meeting of the Orthopaedic Research Society, 2009.

Lepinski NM, Killian ML, Haut RC, **Isaac DI**, Haut-Donahue TL. Meniscus Tissue Response Following Tibia-Femoral Impact. 55th Annual Meeting of the Orthopaedic Research Society, 2009.

Lepinski NM, Killian ML, **Isaac DI**, Haut RC, Haut Donahue TL. Characterizing Lapine Meniscal Tissue: A Regional Comparison between Normal Medial and Lateral Menisci. American Society of Mechanical Engineers – Bioengineering Conference, 2009.

Killian ML, Haut RC, **Isaac DI**, Dejardin LM, Leetun D, Haut Donahue TL. Traumatic Anterior Cruciate Ligament Tear and its Implications on Meniscal Degradation: A Preliminary Novel Lapine Osteoarthritis Model. American Society of Mechanical Engineers – Bioengineering Conference, 2009.

Killian ML, Haut RC, **Isaac DI**, Lepinski NM. Regional Glycosaminoglycan Coverage of Healthy Rabbit Menisci. American Society of Mechanical Engineers – Bioengineering Conference, 2009.

Book Chapters:

Rana J, **Isaac D.** (2021). Chronic Leukemias. In. R. D. Kellerman (Ed). Conn’s Current Therapy 2021, E-book (pp. 409-415). Philadelphia, PA; Elsevier.

PROFESSIONAL AFFILIATIONS & CERTIFICATES

- Member, Breast Cancer Advisory Committee, McLaren Greater Lansing (2020)
- Member, Big Ten Cancer Research Consortium, genitourinary cancers sub-committee
- Member, Joint Outcomes Group, Division of Blood Disorders, Centers for Disease Control and Prevention
- Board Member, Michigan Society of Hematology Oncology (2019 – Present)
- Fellow Board Member, Michigan Society of Hematology Oncology (20018-2019)
- Section Editor: Journal of Clinical Outcomes Management – Outcomes Research in Review
- American Society of Hematology
- American Society of Clinical Oncology
- American College of Physicians
- Michigan Society of Hematology Oncology
- Michigan Osteopathic Association
- Residents as teachers course, Stanford University course in medical education
- Advanced training in pain management course, William Beaumont Hospital (2015)

CLINICAL TRIALS:

PRINCIPLE INVESTIGATOR

1. EV-103/SGN22E-002: A study of enfortumab vedotin (ASG-22CE) as monotherapy or in combination with other anticancer therapies for the treatment of urothelial cancer.

SUB-INVESTIGATOR

1. EMD Serona MS1000070_0176: An Open-Label, Multicenter Follow-up Study to Collect Long-term Data on Participants from Multiple Avelumab (MSB0010718C) Clinical Studies
2. Celgene Connect MM Registry Protocol: The Multiple Myeloma Disease Registry
3. Incyte INCB-MA-MF-40: Prospective, longitudinal, non-interventional study of disease burden and treatment of patients with low-risk myelofibrosis (mf) or high-risk essential thrombocythemia (et) or et patients receiving et-directed therapy. Short title: myelofibrosis and essential thrombocythemia observational study (most)
4. GlaxoSmithKline 207497: A Phase I/II, Open-label, Dose Escalation and Expansion Study to Evaluate Safety, Tolerability, and Clinical Activity of the Antibody-Drug Conjugate GSK2857916 Administered in Combination with Lenalidomide Plus Dexamethasone (Arm A), or Bortezomib Plus Dexamethasone (Arm B) in Participants with Relapsed / Refractory Multiple Myeloma – (DREAMM 6)
5. CELGENE CONNECT MDS/AML/ICUS REGISTRY: An observational study of patients with newly diagnosed (within 2 months) MDS or AML. Patients are excluded if they have received treatment with active agents for MDS or AML prior to ICF date. Supportive care treatments are allowed
NCT#01688011
<https://clinicaltrials.gov/ct2/show/NCT01688011?term=01688011&rank=1>
(PI Borys Hrinchenko, MD)
6. ALEXION PAROXYSMAL NOCTURNAL HEMOGLOBINURIA (PNH) REGISTRY: A multi-center, multi-national, observational registry with enrollment of patients who diagnosed with PNH including patients previously treated with Soliris and withdrawn from treatment
NCT#01374360
<https://clinicaltrials.gov/ct2/show/NCT01374360?term=nct01374360&rank=1>
(PI Borys Hrinchenko, MD)
7. ALLIANCE A011401: Randomized Phase III trial evaluating the role of weight loss in adjuvant treatment of overweight and obese women with early breast cancer. For Stage II or Stage III, HER2 negative, and ER/PR positive or negative breast cancer (**BWEL Trial**) NCT#02750826
<https://clinicaltrials.gov/ct2/show/NCT02750826?term=A011401&rank=1>
(PI Jatin Rana, MD)
8. BIG TEN BTCRC-BRE16-042: A Phase II study of pembrolizumab plus fulvestrant in hormone receptor positive, HER-2 negative advanced/metastatic breast cancer patients

NCT03393845

<https://clinicaltrials.gov/ct2/show/NCT03393845?term=BTCRC-BRE16-042&rank=1>

(PI Jatin Rana, MD)

9. NSABP B-59: A randomized, double-blind, Phase III clinical trial of neoadjuvant chemotherapy with atezolizumab or placebo in patients with triple-negative breast cancer followed by adjuvant continuation of atezolizumab or placebo NCT#03281954
<https://clinicaltrials.gov/ct2/show/NCT03281954?term=B-59&rank=1>
(PI Jatin Rana, MD)
10. SWOG S1418 (NRG BR006): A randomized, Phase III trial to evaluate the efficacy and safety of MK-3475 as adjuvant therapy for triple receptor-negative breast cancer with ≥ 1 cm residual invasive cancer or positive lymph nodes ($>pN1mic$) after neoadjuvant chemotherapy NCT#02954874
<https://clinicaltrials.gov/ct2/show/NCT02954874?term=02954874&rank=1>
(PI Jatin Rana, MD)
11. BIG TEN BTCRC-GI15-015: A Phase II study of FOLFOX combined with nab-paclitaxel (FOLFOX-A) in the treatment of metastatic or advanced unresectable gastric, gastro-esophageal junction adenocarcinoma NCT#03283761
<https://clinicaltrials.gov/ct2/show/NCT03283761?term=BTCRC-GI15-015&rank=1>
(PI Jatin Rana, MD)
12. ALLIANCE A221504: A randomized, double-blind, placebo-controlled pilot study of an oral, selective peripheral opioid receptor antagonist in advanced non-small cell lung cancer (Adenocarcinoma) Stage IIIB or Stage IV NCT#02912559
<https://clinicaltrials.gov/ct2/show/NCT03087708?term=A221504&rank=1>
(PI Borys Hrinchenko, MD)
13. BIG TEN BTCRC-LUN16-081: A Phase II study of consolidation immunotherapy with nivolumab and ipilimumab or nivolumab alone following concurrent chemoradiotherapy for unresectable Stage IIIA/IIIB non-small cell lung cancer NCT#03285321
<https://clinicaltrials.gov/ct2/show/NCT03285321?term=BTCRC-LUN16-081&rank=1>
(PI Borys Hrinchenko, MD)
14. CELGENE CONNECT MDS/AML/ICUS REGISTRY: An observational study of patients with newly diagnosed (within 2 months) MDS or AML. Patients are excluded if they have received treatment with active agents for MDS or AML prior to ICF date. Supportive care treatments are allowed
NCT#01688011
<https://clinicaltrials.gov/ct2/show/NCT01688011?term=01688011&rank=1>
(PI Borys Hrinchenko, MD)
15. ECOG NHLBI MDS: The National Myelodysplastic Syndromes (MDS) Study. A multi-center study enrolling patients suspected or newly diagnosed with myelodysplastic syndromes (MDS), myelodysplastic syndromes/myeloproliferative neoplasms (MDS/MPN) overlap disorder, or idiopathic cytopenia of undetermined significance (ICUS) NCT#02775383
<https://clinicaltrials.gov/ct2/show/NCT02775383?term=02775383&rank=1>

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16. NRG-GU006: A phase II, double-blinded, placebo-controlled randomized trial of salvage radiotherapy with or without enhanced anti-androgen therapy with apalutamide in recurrent prostate cancer NCT#03371719

<https://clinicaltrials.gov/ct2/show/NCT03371719?term=NRG-GU006&rank=1>

(PI Jatin Rana, MD)

ADVISORY COMMITTEES:

1. Inlyta NA Therapy Management Community Advisory Board 2020. Pfizer Inc.