

## Mustafa Steven Ascha

Center for Clinical Investigation  
Cleveland Institute for Computational Biology  
Case Western Reserve University  
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### EDUCATION

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|-------------|---|
| 2016-2019   | Case Western Reserve University<br>Center for Clinical Investigation<br>Department of Population and Quantitative Health Sciences<br>Candidate, PhD, Clinical and Translational Science     |
| 2014-2016   | Case Western Reserve University<br>Center for Clinical Investigation<br>Department of Population and Quantitative Health Sciences<br>Graduate Certificate in Clinical Research<br>GPA: 4.00 |
| 2014-2016   | Case Western Reserve University<br>Department of Physiology and Biophysics<br>Master's of the Sciences, Medical Physiology<br>GPA: 3.95   |
| 2007 – 2011 | Case Western Reserve University<br>Department of Economics<br>Bachelor's of the Arts, Economics<br>Minor, Philosophy<br>GPA: 3.04   |

### WORK AND RESEARCH

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|----------------|---|
| 2018 – present | Cleveland Institute for Computational Biology<br>Case Western Reserve University, Cleveland Ohio<br>Supervisor: Mark Beno, MSM<br>Title: Biomedical and Patient-Centric Data ETL Specialist |
| 2016 - present | University Hospitals Case Medical Center, Cleveland, Ohio<br>Ear, Nose, and Throat Institute<br>Department of Otolaryngology – Head & Neck Surgery<br>Supervisor: Todd D. Otteson, MD, MPH  |

Ascha  
October 10, 2018

Title: Clinical Research Specialist - Enlarged Vestibular Aqueduct Research Program

- Study director, Enlarged Vestibular Aqueduct Registry (EVAR)
- Wrote and submitted an IRB application for EVAR
- Ensured timely launch of EVAR by coordinating IRB interaction, website development, EVAR marketing, and supervisor input
- Submitted and earned approval for EVAR to be listed on ClinicalTrials.gov
  - o <https://clinicaltrials.gov/ct2/show/study/NCT02798783>
- Authored and submitted manuscripts and abstracts for publication and presentation
- Conceived, implemented, and wrote manuscript for a retrospective study of hearing loss in EVA patients
  - o Designed study to reflect longitudinal nature of hearing loss progression
  - o Used repeated measures of hearing to construct linear mixed-effects models
  - o Examined the impact of inner ear morphology on hearing loss
- Consulted with ENT residents to design and implement several retrospective studies
  - o Wrote reproducible reports with methods and results for residents to use writing manuscripts

2014 - present

Cleveland Clinic Foundation, Digestive Disease Institute, Cleveland, Ohio

PI: Ibrahim Hanounieh, MD

- Authored and submitted manuscripts and abstracts for publication and presentation

2010-2011

Louis Stokes Veterans Affairs Medical Center, Cleveland, Ohio

Spinal Cord Injury and Disorders Department

Supervisor: Christine Woo, MS

- Developed telehealth program materials
- Participated in manuscript revision

2008 - 2010

Cleveland Clinic Foundation, Digestive Disease Institute, Cleveland, Ohio

PI: Nizar Zein, MD

- Designed experiments based on questions discovered during literature search
- Retrieved and pre-processed data
- Authored and submitted manuscripts and abstracts for publication and presentation

## BIBLIOGRAPHY

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### Peer Reviewed Publications

1. **Ascha MS**, Hanounieh IA, Lopez R, Tamimi TA, Feldstein AF, Zein NN. The incidence and risk factors of hepatocellular carcinoma in patients with nonalcoholic steatohepatitis. *Hepatology*.

Ascha

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2010;51(6):1972-8. doi: 10.1002/hep.23527.PMID: 20209604.

2. **Ascha MS**, Ascha ML, Zein NN, et al. Treatment of Recurrent Hepatitis C Genotype 4 Post-Liver Transplantation with Sofosbuvir plus Simeprevir. *Int J Organ Transplant Med*. 2015;6(2):86-90. PMID: 26082832. PMCID: PMC4464282
3. **Ascha MS**, Ascha ML, Hanouneh IA. Management of immunosuppressant agents following liver transplantation: Less is more. *World J Hepatol* 2016;8(3): 148-161. doi:10.4254/wjh.v8.i3.148. PMID: 26839639. PMCID: PMC4724578.
4. Ascha M, Wang Z, **Ascha MS**, Dweik R, Zein NN, Grove D, Brown JM, Marshall S, Lopez R, Hanouneh IA. Metabolomics studies identify novel diagnostic and prognostic indicators in patients with alcoholic hepatitis. *World J Hepatol*. 2016;8(10):499-508. doi: 10.4254/wjh.v8.i10.499. PMID: 27057307. PMCID: PMC4820641.
5. Ascha M, Hanouneh M, **Ascha MS**, Zein NN, Sands M, Lopez R, Hanouneh IA. Transjugular Intrahepatic Porto-Systemic Shunt in Patients with Liver Cirrhosis and Model for End-Stage Liver Disease  $\geq 15$ . *Dig Dis Sci*. 2016 May 6. PMID: 27154510.
6. Nayfe R, **Ascha MS**, Ismail M, Salvino R. Gastrocolic Fistula as a Presentation of Concomitant Gastric and Colon Cancer in a Patient with a History of Metastatic Pancreatic Adenocarcinoma. *J Gastrointest Cancer*. 2016; Epub ahead of print. PMID: 27251299.
7. **Ascha MS**, Ascha ML, Hanouneh IA. Black Ascites: An interesting presentation of pancreatic duct leak. *Case Reports in Internal Medicine*. 2016; 3(4):18-21. doi: 10.5430/crim.v3n4p18.
8. **Ascha MS**, Manzoor N, Gupta A, Semaan M, Megerian C, Otteson TD. Vestibular Aqueduct Midpoint Width and Hearing Loss in Patients With an Enlarged Vestibular Aqueduct. *JAMA Otolaryngol Head Neck Surg*. 2017;143(6):601-608. doi: 10.1001/jamaoto.2016.4522 PMID: 28334328
9. Ascha M, **Ascha MS**, Gastman B. Identification of Risk Factors in Lymphatic Surgeries for Melanoma: A National Surgical Quality Improvement Program Review. *Ann Plast Surg*. 2017; Epub ahead of print. DOI: 10.1097/SAP.0000000000001152 PMID: 28650410
10. Ahadzadeh, E, **Ascha MS**, Manzoor N, Gupta A, Semaan M, Megerian C, Otteson TD. "Hearing loss in enlarged vestibular aqueduct and incomplete partition type II." 2017 Nov - Dec;38(6):692-697. doi: 10.1016/j.amjoto.2017.06.010. Epub 2017 Jun 23. PMID: 28793961
11. Nayfe, R, **Ascha, MS** and Rehmus, EH, 2017. Esophageal Squamous Cell Carcinoma Presenting with Streptococcus intermedius Cerebral Abscess. *Case Reports in Pathology*, 15 August 2017.

12. Ascha M, **Ascha MS**, Tanenbaum J, Bordeaux JS. Risk Factors for Melanoma in Renal Transplant Recipients. *JAMA Dermatol.* 2017;153(11):1130–1136. doi:10.1001/jamadermatol.2017.2291 PMID: 28746700
13. Patel AV, Thuener JE, Clancy K, **Ascha M**, Manzoor NF, Zender CA. Submental artery island flap versus free flap reconstruction of lateral facial soft tissue and parotidectomy defects: Comparison of outcomes and patient factors. *Oral Oncology.* 2018 Mar;78:194-199. doi: 10.1016/j.oraloncology.2018.01.027. Epub 2018 Feb 20. PMID: 29496050
14. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha MS**, Mercer BM. Medicaid and Fulfillment of Desired Postpartum Sterilization. *Contraception.* 2018 Feb 25. pii: S0010-7824(18)30074-X. doi: 10.1016/j.contraception.2018.02.012. [Epub ahead of print]. PMID: 29490290
15. Ostrom QT, Cote DJ, **Ascha MS**, Kruchko C, Barnholtz-Sloan JS. Adult Glioma Incidence and Survival by Race or Ethnicity in the United States From 2000 to 2014. *JAMA Oncology.* 2018 Jun 21:e181789-e181789. PMID: 29931168
16. Tamaki A, Manzoor NF, Babajanian E, **Ascha M**, Rezaee R, Zender CA. Clinical Significance of Sarcopenia among Patients with Advanced Oropharyngeal Cancer. *Otolaryngology–Head and Neck Surgery.* 2018 Aug 14:0194599818793857. DOI: 10.1177/0194599818793857. PMID: 30105922
17. Wilkinson B, **Ascha M**, Verbus E, Montague M, Morris J, Mercer B, Arora KS. Medicaid and receipt of interval postpartum long-acting reversible contraception. *Contraception.* 2018 Sep 5. pii: S0010-7824(18)30426-8. doi: 10.1016/j.contraception. 2018 Aug 17. PMID: 30194927
18. Montague M, **Ascha M**, Wilkinson B, Verbus E, Morris J, Mercer BM and Arora KS, 2018. Role of Bridge Contraception in Postpartum Long-Acting Reversible Contraception and Sterilization Fulfillment Rates. *Obstetrics & Gynecology*, 2018 Sep;132(3), pp.583-590. doi: 10.1097/AOG.0000000000002803 PMID: 30095782
19. Raina R, Chauvin A, Fox K, Kesav N, **Ascha M**, Vachharajani TJ and Krishnappa V. 2018. Effect of Immunosuppressive Therapy on the Occurrence of Atypical Hemolytic Uremic Syndrome in Renal Transplant Recipients. *Annals of transplantation*, 2018 Sep 7: 23, pp.631-638. DOI: 10.12659/AOT.909781. PMID: 30190449

## Oral Presentations – Meetings and Conferences

1. **Ascha MS**, Hanouneh IA, Lopez R, Abu-Rajab Tamimi TI, Albeldawi M, Feldstein AE, McCullough AJ, Zein NN. “Cumulative Incidence and Risk Factors of Hepatocellular Carcinoma (HCC) in Patients with END-Stage Liver Disease Secondary to Nonalcoholic Steatohepatitis (NASH).” *Gastroenterology*, Volume 136, Issue 5, Supplement 1, May 2009, Page A-797, ISSN 0016-5085, [http://dx.doi.org/10.1016/S0016-5085\(09\)63676-3](http://dx.doi.org/10.1016/S0016-5085(09)63676-3). Presented by Ascha MS.
2. Ascha ML, **Ascha MS**, Dweik R, Zein NN, Brown M, Marshall S, Hazen S, Wang Z, Grove D, Hanouneh IA. “Metabolomics: Identifying novel prognostic indicators in patients with end-stage liver disease.” Case Western Reserve University QGrad LGBT Symposium, Cleveland, Ohio (April 23, 2015). Presented by Ascha MS.
3. Ascha ML, **Ascha MS**, Hanouneh IA. “Treatment of recurrent hepatitis C genotype 4 post-liver transplantation with sofosbuvir plus simeprevir: a case series.” Case Western Reserve University QGrad LGBT Symposium, Cleveland, Ohio (April 23, 2015). Presented by Ascha MS.
4. Ascha M, **Ascha MS**, Dweik R, Zein N, Brown M, Marshall S, Hazen S, Wang Z, Grove D, Hanouneh I. “Metabolomics Studies Identify Novel Prognostic Indicators in Patients with End-Stage Liver Disease.” Translational and Basic Science Research Plenary Session, Digestive Disease Week, Washington, DC (May 17, 2015). Presented by Ascha M.
5. Ascha M, Hanouneh M, **Ascha MS**, Zein NN, Sands M, Lopez R, Hanouneh IA. “Transjugular Intrahepatic Portosystemic Shunt in Patients with Liver Cirrhosis and Model for End-Stage Liver Disease  $\geq 15$ .” Lepow Day 2016, Case Western Reserve University School of Medicine, Cleveland, OH (August 18, 2016). Presented by Ascha M.
6. Ascha M, **Ascha MS**, Gastman B. “Identification of Risk Factors in Lymphatic Surgeries for Melanoma: A NSQIP Review.” Ohio Valley Society of Plastic Surgeons 60th Annual Meeting, Pittsburgh, PA (June 2, 2017). Presented by Ascha M.
7. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer B. "Two-Tiered Reproduction - Normative and Quantitative Analysis of Barriers to Equitable Postpartum Sterilization." American Society for Bioethics and the Humanities Annual Meeting. October 2017.
8. **Ascha, MS**. “make Dissertation: Reproducibility in Research”. Cyberinfrastructure Day 2018. UTech Research Computing and Cyberinfrastructure Team. April 13, 2018. Presented by Ascha MS.

## Oral Presentations - Academic

1. Ascha MS. “Working with NHANES data in R: An interactive coding session”. Fundamentals of Clinical Information Systems, Systems Biology, Case Western Reserve University. October 3, 2017. Instructor: Colin Drummond.

<https://gist.github.com/mustafaascha/4fdf4a9971f957f6bd0dfe10b3563a12>

2. Ascha MS. "Finding data and working with it in R: An interactive coding session". Fundamentals of Clinical Information Systems, Systems Biology, Case Western Reserve University. October 2, 2018. Instructor: Colin Drummond.  
<https://gist.github.com/mustafaascha/1812b1d13c6b5b9b4564c323c47c1c70>
3. Ascha MS, Saroufim P, Beno M, Barnholtz-Sloan JS. "Health Informatics and Big Data". Case Western Reserve University School of Medicine, Systems and Scholarship Session 1, August 29 and 30.

#### Software and Reproducibility Materials

1. **Ascha MS**. (2018, August 5). mustafaascha/nsqipr: Plastic Surgery and the presence of a July Effect (Version v0.0.0.9003). Zenodo. <https://doi.org/10.5281/zenodo.1209963>
2. **Ascha MS**. (2018, August 5). mustafaascha/brain-mets-seer: Reproducibility repository for a study of brain metastases in SEER-Medicare (Version v1.0.2). Zenodo.  
<https://doi.org/10.5281/zenodo.1300052>

#### Abstracts

1. Manzoor NF, Clancy K, Rezaee RP, **Ascha MS**, Zender CA, Lavertu P, Megerian CA, Semaan MT; Multidisciplinary management of head and neck malignancies involving the lateral skull base. ANS 52<sup>nd</sup> Annual Spring Meeting, April 2017.
2. Manzoor NF, Hoppe K, **Ascha MS**, Mowry SE, Megerian CA, Otteson TD, Semaan MT; Delineating hearing loss at radiographic diagnosis in enlarged vestibular aqueduct syndrome. AOS 150th Annual Meeting, April 2017.
3. Kurlander DE, Ascha M, Marshall D, Wang D, **Ascha M**, Tripi PA, Reeves, HM, Downes, KA, Ahuja S, Rotta AT, Tomei, K, 2017. Striving for Transfusion-Free Open Cranial Vault Remodeling: A Novel Protocol. *Plastic and Reconstructive Surgery Global Open*, 5(9 Suppl). PMID: PMC5636509

#### Poster Presentations

1. **Ascha MS**, Hanouneh IA, Lopez R, Feldstein AE, Zein NN. "Risk score for predicting the lack of response to antiviral treatment in patients with chronic HCV infection." American College of Gastroenterology, Orlando, Florida (October 3 – 8, 2008). Presented by Ascha MS
2. Ascha ML, **Ascha MS**, Hanouneh IA. "Treatment of recurrent hepatitis C genotype 4 post-liver transplantation with sofosbuvir plus simeprevir: a case series." Case Western Reserve University Department of Physiology and Biophysics Retreat, Cleveland, Ohio (September 25, 2015). Presented by Ascha MS.

3. Ascha M, Hanouneh M, **Ascha MS**, Zein NN, Sands M, Lopez R, Hanouneh IA. "Transjugular Intrahepatic Porto-Systemic Shunt in Patients with Liver Cirrhosis and Model for End-Stage Liver Disease  $\geq 15$ ." Department of Medicine Research Day, Case Western Reserve University, Cleveland, OH (May 6, 2016). Presented by Ascha M.
4. **Ascha MS**, Ascha ML, Hanouneh IA. "Black ascites: an interesting presentation of pancreatic duct leak". American College of Gastroenterology, October 17, 2016. Las Vegas, Nevada. Presented by Ascha MS.
5. Ascha ML, Hanouneh M, **Ascha MS**, Zein NN, McCullough A, Hanouneh IA. "The utility of tacrolimus in the management of adults with difficult-to-treat autoimmune hepatitis: review of literature". American College of Gastroenterology, October 18, 2016, Las Vegas, Nevada. Presented by Ascha MS.
6. Johnson A, **Ascha MS**, Manzoor NF, Gupta A, Semaan M, Megerian C, Otteson T. "Operculum width and hearing loss in patients with enlarged vestibular aqueduct". Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Johnson A. Winner of a poster prize.
7. Johnson A, **Ascha MS**, Manzoor NF, Gupta A, Semaan M, Megerian C, Otteson T. "Air-bone gap in patients with enlarged vestibular aqueduct". Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Johnson A.
8. Ahadizadeh E, **Ascha MS**, Manzoor NF, Gupta A, Semaan M, Megerian C, Otteson T. "Hearing loss in enlarged vestibular aqueduct and incomplete partition type II. Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Ahadizadeh E.
9. Marshall D, Kurlander DE, Ascha M, Wang D, **Ascha M**, Tripi PA, Reeves, HM, Downes, KA, Ahuja S, Rotta AT, Tomei, K . Striving for Transfusion-Free Open Cranial Vault Remodeling: A Novel Protocol. Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Marshall D.
10. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer B. "Disparities in Postpartum Sterilization Fulfillment for Women Covered by Medicaid Versus Private Insurance." North American Forum on Family Planning. October 2017. Presented by Arora KS.
11. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer B. "Disparities in Postpartum Sterilization Fulfillment for Women Covered by Medicaid Versus Private Insurance." MetroHealth Research Day. November 2017. Presented by Arora KS.
12. Yong V, **Ascha MS**, Awan M, Abrol Anish, Zender C. Interpreting Indeterminate Post-Treatment PET/CT Results in Patients with Head and Neck Squamous Cell Carcinoma. American Head and Neck Society, Combined Otolaryngological Spring Meeting. April 18 - 19, 2018. National Harbor, Maryland. Presented by Yong V.
13. Archibald H, **Ascha MS**, Otteson TD. "Unilateral enlarged vestibular aqueduct syndrome may reflect a different disease process than bilateral". American Society of Pediatric Otolaryngology, Combined Otolaryngological Spring Meeting. April 18 - 22, 2018. H078. Presented by Archibald

H.

14. **Ascha MS**, Ostrom QT, Wright J, Kumthekar P, Bordeaux J, Schumacher FR, Sloan A, Kruchko C, Barnholtz-Sloan JS. Lifetime occurrence of brain metastases arising from breast, lung, and melanoma cancers: A reproducible SEER-Medicare study. Case Comprehensive Cancer Center Retreat, July 26-27, 2018. Presented by Ascha MS.
15. Wang JF, **Ascha MS**, Sloan A, Kruchko C, Barnholtz-Sloan JS. Bevacizumab for the treatment of lung cancer with brain metastases. Case Comprehensive Cancer Center Retreat, July 26-27, 2018. Presented by Wang JF.
16. Wang JF, **Ascha MS**, Sloan A, Kruchko C, Barnholtz-Sloan JS. Bevacizumab for the treatment of lung cancer with brain metastases. Irwin H. Lepow Medical Student Research Day, Case Western Reserve University, September 20, 2018. Cleveland, Ohio. Presented by Wang JF.
17. Ruthberg J, **Ascha MS**, Gupta A, Otteson TD. Sex-specific differences and hearing fluctuation in patients with an enlarged vestibular aqueduct. Irwin H. Lepow Medical Student Research Day, Case Western Reserve University, September 20, 2018. Cleveland, Ohio. Presented by Ruthberg J.

## TEACHING EXPERIENCE

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|------------------------|---|
| Summer 2016            | Teaching Assistant, <b>Introduction to R Programming</b><br>Case Western Reserve University, Clinical Research Scholars Program<br>Course Director: Steven Lewis, MS, MBA <ul style="list-style-type: none"><li>• Met with students to review core R Programming concepts</li><li>• Graded and designed homework assignments</li><li>• Lectured regarding the use of R Markdown<ul style="list-style-type: none"><li>o <a href="https://github.com/mustafaascha/rmarkdownTutorial">https://github.com/mustafaascha/rmarkdownTutorial</a></li></ul></li></ul>  |
| Fall 2016, Spring 2017 | Teaching Assistant, <b>Statistics I and Statistics II</b><br>Case Western Reserve University, Department of Epidemiology and Biostatistics<br>Course Director: Thomas Love, PhD <ul style="list-style-type: none"><li>• Updated course notes and assignment solutions to reflect modern R practices<ul style="list-style-type: none"><li>o Re-wrote figures to use the R package ggplot2</li><li>o Re-wrote code to use the R package dplyr</li></ul></li><li>• Converted R Markdown notes for use with the R package bookdown<ul style="list-style-type: none"><li>o Organized notes for use both in website or PDF format</li></ul></li><li>• Wrote exploratory data analysis convenience functions</li></ul> |
| Summer 2017            | Teaching Assistant, <b>Epidemiology Clinical Research Block</b><br>Cleveland Clinic Lerner College of Medicine at Case Western Reserve University<br>Course Director: Paola Raska, PhD <ul style="list-style-type: none"><li>• Aided in clinical research training for medical students</li></ul>   |



- Responsibilities included explaining measures of disease frequency, identifying confounding, direct and indirect adjustment, and clinical study design
- Provided guidance for students pursuing their own projects; this involved helping develop testable hypotheses, perform power analysis, and implement analysis using R and JMP

## COMMUNITY SERVICE

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| Jan. – Jun. 2013 | <p>Volunteer, Perioperative Care Center<br/>Hillcrest Hospital, Cleveland Clinic Health System, Mayfield Heights, Ohio</p> <ul style="list-style-type: none"> <li>• Prepared rooms for post-surgery patients</li> <li>• Transported patients to hospital exit for pick-up</li> </ul>                       |
| 2015             | <p>Volunteer, Preventing Incident Delirium in the Elderly (PRIDE) Program<br/>University Hospitals Case Medical Center, Cleveland, Ohio</p> <ul style="list-style-type: none"> <li>• Re-oriented elderly patients to place and time</li> <li>• Spent time in conversation with elderly patients</li> </ul> |

**Languages:** Conversant in French and Syrian Arabic

**Interests:** Playing guitar, working with electronics, computer science