Research Resources:
The resources to the right are available to all investigators affiliated with Children’s Healthcare of Atlanta (CHOA), including medical staff, Emory Department of Pediatrics (DOP) faculty and staff, and those outside of the DOP and CHOA who are members of our research centers. We encourage involvement of all those interested in research throughout our system, and provide this as a guide to resources along with our research website www.pedsresearch.org. Our goals are to build infrastructure and programs that serve a broad community of scientists and clinicians engaged in pediatric research, and provide training in grant writing and grant opportunities that enhance our extramural funding for all child health investigators affiliated with Children’s Healthcare of Atlanta. For suggestions and comments on any of the initiatives and resources, please contact Clinton H. Joiner, MD, PhD Clinton.joiner@emory.edu or Stacy Heilman, PhD stacy.heilman@emory.edu

Grant and Manuscript Support
- Stacy Heilman, PhD
  Director, Research Operations 404-727-4819
  stacy.heilman@emory.edu
- Assistance with finding grant opportunities and connecting to collaborators
- Core laboratory assistance, supervision

Grants & Manuscript Editing
- Prioritized for extramural funding opportunities, program projects
- Experienced at program project management, grant and scientific paper editing
- Request form on pedsresearch.org; send to Stacy Heilman

Clinical studies/coordinates
- CHOA Clinical Research Administration
  TBH 404-785-7477 and Stephanie Meisner
  stephanie.meisner@choa.org
  404-785-6453
- Manager, Egleston campus:
  Rebecca Cleeton 404-785-0109
  rebecca.cleeton@choa.org

- Manager, Hughes Spalding/Scottish Rite campuses:
  Beena Desai 404-785-2269
  beena.desai@choa.org
- Lead Research Nurse, Pediatric Research Center (PCRU/CAP Building):
  Cheryl Stone, RN
  cherylL.stone@choa.org
  404-785-0400-main number

Equipment Core: Biosafety cabinet, incubators, clinical centrifuge, real-time PCR machine, standard PCR machine, multilabel plate reader, gel documentation system on order. Services: This core provides common equipment for investigator’s use, including access to benchtop space and hood space, centrifuges for clinical specimen processing

Biostatistics Core
- Shasha Bai, PhD, Director
- Scott Gillespie, MS, Asst Director
- Mike Kelleman, MSPH
Procedure: Request form located at:
http://www.pedsresearch.org/research/cores/biostatistics-core/overview/
Priorities: analysis for grant applications and Publications

Pediatric Clinical Research Unit (PCRU)–
A six-bed outpatient research unit/ A two-bed inpatient research unit/ A four-bed inpatient research unit/ A core research lab/ A research pharmacy/ Bionutrition services/Nursing Services including, but limited to: Medication administration including investigational drugs; I.V. access and port access; I.V. infusions; Routine and complex vital sign monitoring; Phlebotomy; Timed specimen collections such as PK trials and oral glucose tolerance tests; Telemetry monitoring; For more information, please visit:
http://www.pedsresearch.org/research/support-services/dedicated-clinical-research-facilities

Emory Clinical Research Services
- Sarah Marie Huban, Director
  sarah.marie.huban@emory.edu
  472-0736
- Scientific Facilities Manager
  Kira Moresco, MS
  kira.moresco@emory.edu
  472-6515

Laboratory Specimen Processing:
Clinical Laboratory at Egleston and Scottish Rite
- Heather MacDonald, Manager Advanced Diagnostics Laboratory
  404-785-5766
  heather.macdonald@choa.org or
  labresearchcoordinator@choa.org
- Clinical trials specimen processing, shipping, limited storage
- ACTSI processing lab
- Laboratory inventory management system (LIMS) available
Pediatric Research Alliance Center Contacts

**Center Directors:**

Aflac Cancer and Blood Disorders Center
**Center Director:** Doug Graham, MD, PhD
douglas.graham@choa.org
Program Coordinator: Molly Green molly.green@emory.edu

Children’s Heart Research and Outcomes Center
**Center Director:** Mike Davis, PhD
michael.davis@bme.gatech.edu
Program Manager: Kelcey Little, MS Kelcey.little@emory.edu

Center for Clinical and Translational Research
**Center Directors:** Claudia Morris, MD claudia.r.morris@emory.edu and Miriam Vos, MD MSPH MVOS@emory.edu
Program Manager: Kelcey Little, MS Kelcey.little@emory.edu

Center for Pediatric Cellular Therapies
**Center Directors:** Edwin M. Horwitz, MD, PhD edwin.horwitz@emory.edu and H. Trent Spencer, PhD hspence@emory.edu
Program Manager: Jianing Li, PhD jianing.li@emory.edu

Center for Pediatric Cystic Fibrosis & Airways Disease Research
**Center Director:** Nael McCarty, PhD namccar@emory.edu
Program Manager: Lilly Meier lilly.chriszt@emory.edu

Center for Drug Discovery
**Center Director:** Baek Kim, PhD Baek.kim@emory.edu
Program Manager: Tracy Willoughby twillo2@emory.edu

Center for Childhood Infections and Vaccines
**Center Director:** Ann Chahroudi, MD, PhD ann.m.chahroudi@emory.edu
Program Manager: Megan Vallowe, PhD

Children’s Center for Neurosciences Research
**Interim Center Director:** Stacy Heilman, PhD Stacy.heilman@emory.edu
Program Manager: Gillian Glauber Gillian.Glauber@emory.edu

Children’s Center for Immunity and Applied Genomics
**Center Director:** Subra Kugathasan, MD skugath@emory.edu
**Co-Director:** Greg Gibson, PhD greg.gibson@biology.gatech.edu
Program Manager: Tracy Willoughby twillo2@emory.edu

Marcus Autism Center
**Center Director:** Ami Klin, PhD amiklin@emory.edu and Larry Scahill, MSN, PhD lawrence.scahill@emory.edu and Gordon J. Ramsey, PhD gordon.ramsay@emory.edu
Program Manager: Gillian Glauber Gillian.Glauber@emory.edu

Pediatric Technology Center
**Chief Scientific Officer:** MG Finn, PhD mfinn@gatech.edu
Program and Operations Manager: Sheri Russell Sheri.Russell@tri.gatech.edu

Research Alliance Administration:
**Lucky Jain, MD, MBA**
Richard W Blumberg Professor and Chair
Emory University School of Medicine, Department of Pediatrics, Executive Medical Director & Chief Academic Officer, Children’s Healthcare of Atlanta ljain@emory.edu

**Clinton Joiner, MD, PhD**
Vice Chair for Research, Emory Department of Pediatrics
Children’s Chief Research Officer clinton.joiner@emory.edu

**Stacy S. Heilman, PhD**
Associate Vice Chair for Research
Department of Pediatrics, Emory University & Children’s Healthcare of Atlanta stacy.heilman@emory.edu

**Liz McCarty**
Vice Chair, DOP Administration & Executive Administrator, SOM mmccar2@emory.edu

**Shantisa Fulgham**
Senior Business Manager, Department of Pediatrics, Emory University sfulgha@emory.edu

**Melinda Mathis, MPA, CRA**
VP Research and Academic Administration
Children’s Healthcare of Atlanta Melinda.mathis@choa.org

**TBH**
Director, Research Administration
Children’s Healthcare of Atlanta

**Stephanie Meisner, RN**
Director, Clinical Research
Children’s Healthcare of Atlanta
Stephanie.Meisner@choa.org

**Barbara W. Kilbourne, RN, MPH**
Assistant Program Director, Pediatric Research Alliance, Emory University & Children’s Healthcare of Atlanta
Barbara.Kilbourne@emory.edu

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Research Snapshot September 2021
### Research-sponsored events/meetings:

*(This is an overview, for specific dates/events, go to: [http://www.pedsresearch.org/calendar](http://www.pedsresearch.org/calendar]*)

<table>
<thead>
<tr>
<th>MONDAYS</th>
<th>TUESDAYS</th>
<th>WEDNESDAYS</th>
<th>THURSDAYS</th>
<th>FRIDAYS</th>
<th>VARIOUS DAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>K club: Monthly discussions/lectures for K award training, other grants training/education. Typically 2nd Monday, September to May, Contact Stacy Heilman <a href="mailto:Stacy.heilman@emory.edu">Stacy.heilman@emory.edu</a> for more information. <strong>Sponsored by Departments of Pediatrics and Medicine, Georgia CTSA, CFAR and Winship Cancer Institute</strong></td>
<td>Research Grand Rounds: one Wednesday each month, Egleston, 8:00 AM Contact Barbara Kilbourne <a href="mailto:Barbara.Kilbourne@emory.edu">Barbara.Kilbourne@emory.edu</a></td>
<td>Research Leadership Team (RLT) meetings: Designed for central team to discuss detailed operations and issues. For more information, contact Stacy Heilman <a href="mailto:stacy.Heilman@emory.edu">stacy.Heilman@emory.edu</a></td>
<td>Research Seminars: Fridays (Zoom/Egleston Classrooms). Contact Barbara Kilbourne for suggestions or needs <a href="mailto:Barbara.Kilbourne@emory.edu">Barbara.Kilbourne@emory.edu</a></td>
<td>Invited speakers through seminar series sponsored by centers; contact Center Directors or Barbara Kilbourne at <a href="mailto:Barbara.Kilbourne@emory.edu">Barbara.Kilbourne@emory.edu</a> if interested in upcoming events. Center Directors are listed on pedsresearch.org website.</td>
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</tbody>
</table>

Research Snapshot September 2021
### Specialized Research Equipment/Service Cores:

<table>
<thead>
<tr>
<th>CORE</th>
<th>SCIENTIFIC DIRECTOR</th>
<th>TECHNICAL DIRECTOR/CONTACT</th>
<th>EQUIPMENT</th>
<th>LOCATION</th>
<th>SERVICES</th>
</tr>
</thead>
</table>
| Animal Physiology Core | Nitya Bakshi, MD nitya.bakshi@emory.edu | Ming Shen mshen@emory.edu | - Small animal ventilator  
- Cautery  
- Temperature monitoring  
- Anesthesia system  
- Dissecting microscope  
- Visualsonics Vevo 2100 High Frequency Ultrasound* | Emory-Children’s Center, 2nd Floor Lab | This core is a centralized resource specializing in survival surgery for rats and mice in addition to assistance with other USDA regulated animals such as rabbits, guinea pigs and piglets. The core director assists all investigators with development of IACUC protocols. Surgical services currently offered by the Core include pulmonary banding in rat and neonatal rabbit, aortic banding, myocardial infarction 5/6th nephrectomy for chronic kidney disease, liver-ischemia reperfusion and ultrasound guided injection ideally suited for targeted drug or cell therapy delivery. The Core also has available for use a Visualsonics Vevo 2100 High Frequency Ultrasound system that allows high resolution small animal ultrasound examinations for noninvasive measurement of in vivo structure and function. The Core Technical Director has been extensively trained in ultrasound techniques with many years’ experience thereby increasing reliability and reproducibility of imaging data. Studies can either be conducted in an assisted fashion or investigators can reserve the equipment and utilize their own laboratory personnel. |
| Biomarkers Core | Lou Ann Brown, PhD lou.ann.brown@emory.edu 404-727-5739 | Frank Harris fharris@emory.edu | Agilent gas chromatography/mass spectrometer and Waters high performance HPLC with fluorescence detector | Emory-Children’s Center, 3rd Floor Lab | This cores analyzes markers of oxidative stress and markers of alcohol exposure. Speak to Scientific Director about other chromatography/mass spect assays available. |
| Cardiovascular Imaging Core (CIRC) | Ritu Sachdeva, MD sachdevar@kidsheart.com 404-785-CIRC | Joan Lipinski, RDCS, RDMS joan.lipinski@choa.org | - Echocardiograms  
- Flow Doppler  
- 3-D Imaging  
- Upright Bicycle  
- VO2 Analysis  
- Electrocardiogram  
- Cardiac MRI | Outpatient Cardiac Services, 2nd Floor, Tower 1 | This core provides non-invasive cardiac support for investigators involved in clinical research involving infants, children and adolescents. The CIRC has dedicated space, equipment and staff to provide you with quality cardiovascular imaging data that is collected in a meticulous, systematic, detail-orientated manner. Because of our unique set-up, we are able to utilize state-of-the-art imaging modalities not typically seen in the clinical setting. |
| Flow Cytometry/Cell Sorting | David Archer darcher@emory.edu | Technical Director for Core: Aaron Rae aaron.j.rae@emory.edu Immunology services are overseen by Bridget Neary bridget.e.neary@emory.edu | - BD FACS Canto II Flow Cytometer - Lab E-362, HSRB  
- BD LSRII Flow Cytometer - Lab E-362, HSRB  
- BD LSRII Flow Cytometer - Lab E-362, HSRB  
- BD FACS Aria II Cell Sorter - Lab E-362A, HSRB  
- Imagestream X Mark II - Lab E-362, HSRB  
- Luminex 100 Analyzer - Lab E-362, HSRB  
- CTL-ImmunoSpot-S6 Micro Analyzer (ELISPOT Reader) - E-480, HSRB | Health Sciences Research Building, E362 | This core offers access to several state of the art analytical flow cytometers and Luminex as well as high-speed cell sorting. We also offer training as well as expert help to enable our users to improve the quality and scope of their research. The facility provides flow cytometric analyzers and Luminex for the following applications:  
- Immunophenotyping  
- Cell Cycle  
- Ploidy  
- Mitochondrial Potential  
- Apoptosis  
- PhosFlow  
- Live/Dead  
- Cell Proliferation  
- Oxidative Burst  
- Cytokine levels in serum and plasma  
- Gene and protein expression in cells and body fluids |
# Specialized Research Equipment/Service Cores

<table>
<thead>
<tr>
<th>CORE</th>
<th>SCIENTIFIC DIRECTOR</th>
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<th>EQUIPMENT</th>
<th>LOCATION</th>
<th>SERVICES</th>
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</thead>
<tbody>
<tr>
<td>Medical Imaging Resources</td>
<td>Radiologists at Children's are board certified with additional training in pediatric imaging and are available for consultation upon request. This operation also includes physicists with imaging expertise and other staff experts.</td>
<td>Erica Riedesel, MD <a href="mailto:Erica.Riedesel@choa.org">Erica.Riedesel@choa.org</a></td>
<td>• Access to clinical CT (4), PET (1), Bone Densitometry (2), Fluoroscopy (8), Nuclear Medicine (4), Ultrasound (9) and X-ray. • Access to 6 clinical MRI scanners including a 1.0T intraoperative, 1.5T and 3T systems. • Access to 2 fMRI systems. • Sedation Services • Access to radiology investigators specializing in radiology, neuroradiology and interventional radiology. • Access to MRI physicists (3). • Access to research professionals including administrators and research coordinators. • Administrative services including scheduling, archival of images</td>
<td>We provide a cross-disciplinary scientific, administrative, and educational home for imaging science through the Emory Center for Systems Imaging (CSI) and the Pediatric Imaging Research Core (PIRC) at Children's Healthcare of Atlanta.</td>
<td>Inpatient Imaging Resources</td>
</tr>
<tr>
<td>Children's Clinical &amp; Translational Discovery Core</td>
<td>Chris Porter, MD <a href="mailto:Chris.porter@emory.edu">Chris.porter@emory.edu</a></td>
<td>Mimi Le <a href="mailto:uyen.quynh.nguyen.le@emory.edu">uyen.quynh.nguyen.le@emory.edu</a></td>
<td>Freezers (-80, LN2)</td>
<td>Health Sciences Research Building, E264</td>
<td>New Biological Samples • Collection • Processing • Storage in a variety of storage media and freezers, including liquid nitrogen and -80 degree freezers. Monitoring systems ensure 24/7 specimen integrity. • Distribution - Specimens are tracked electronically via the Nautilus LIMS System. Samples Available for Withdrawal • PBMCs, plasma, whole blood, DNA, and urine from pediatric patients with immune-mediated disorders, solid organ transplant recipients and/or patients with end-stage organ disease who are awaiting organ transplant • Blood and urine from living kidney donors and healthy controls with renal diagnoses of rejection, stable function or viremia • Clinical data also can be made available upon request.</td>
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</table>
## Partnership Cores

<table>
<thead>
<tr>
<th>CORE</th>
<th>SCIENTIFIC DIRECTORS</th>
<th>EQUIPMENT</th>
<th>LOCATION</th>
<th>SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Cell Imaging Core</td>
<td>Adam Marcus, PhD Director, ICI&lt;br&gt;<a href="mailto:aimarcu@emory.edu">aimarcu@emory.edu</a>&lt;br&gt;Laura Fox-Goharioon Associate Director for Research Projects, ICI&lt;br&gt;<a href="mailto:laura.fox-goharioon@emory.edu">laura.fox-goharioon@emory.edu</a>&lt;br&gt;Neil Anthony, PhD&lt;br&gt;<a href="mailto:neil.anthony@emory.edu">neil.anthony@emory.edu</a>&lt;br&gt;404-969-CORE&lt;br&gt;April Reedy&lt;br&gt;<a href="mailto:April.reedy@emory.edu">April.reedy@emory.edu</a></td>
<td>The rates for the microscopes included in this effort can be found at: &lt;br&gt;<a href="http://www.cores.emory.edu/ici/documents/ICI%20Fees-Pediatrics%2020171.pdf">http://www.cores.emory.edu/ici/documents/ICI%20Fees-Pediatrics%2020171.pdf</a>. Pediatric researchers will benefit from a 40% subsidy when using any of the ICI equipment and technologies. ICI also provides expert consultation, training, and assistance on all technologies. More information on the microscopes and services available, locations, and how to become a user is available at &lt;br&gt;<a href="http://www.cores.emory.edu/ici/">http://www.cores.emory.edu/ici/</a></td>
<td>A partnership facilitated by the Emory School of Medicine and includes the Pediatric Research Alliance Cellular Imaging Core along with other cellular imaging sites on campus including Winship Cancer Institute, Emory NINDS Neuroscience Core Facilities (ENNCF), and the Department of Physiology</td>
<td>This core provides training and access to advanced cellular imaging systems, including confocal and TIRF microscopy. For more information: &lt;br&gt;<a href="http://www.pedsresearch.org/research/cores/integrated-cellular-imaging-core/overview/">http://www.pedsresearch.org/research/cores/integrated-cellular-imaging-core/overview/</a></td>
</tr>
<tr>
<td>Genetics/Genomics Core Resources</td>
<td>The Emory Integrated Genomics Core (EIGC):&lt;br&gt;<a href="mailto:EIGC@emory.edu">EIGC@emory.edu</a></td>
<td>The EIGC is a full-service genomics and computational facility offering Emory researchers the ability to use the latest technologies and methods of analysis in their research. We offer next-generation sequencing, high density microarray services, targeted enrichment, single nucleotide polymorphism (SNP) genotyping, and cutting-edge computational services built around our custom Galaxy server and Emory University's high performance computing and storage infrastructure. Please go to this link to learn more: Emory Integrated Genomics Core.</td>
<td></td>
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<tr>
<td>Emory Genetics Laboratory (EGL)</td>
<td><a href="mailto:dohginfo@emory.edu">dohginfo@emory.edu</a> or <a href="mailto:domglab@emory.edu">domglab@emory.edu</a></td>
<td>Emory Genetics Laboratory (EGL) is a “one-stop shop” for genetic testing. Its molecular genetics, biochemical genetics, and cytogenetics laboratories are fully integrated and offer one of the most comprehensive test menus available – more than 900 genetic tests are available for clinicians and researchers. As part of Emory University School of Medicine, EGL remains on the forefront of the latest technologies, including exome sequencing, next generation sequencing, whole genomic and targeted microarrays, and more. ABMG-accredited laboratory directors and NSGC-certified laboratory genetic counselors are available to all ordering clinicians and researchers. For more information, please visit Emory Genetics Laboratory.</td>
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## Funding Opportunities:

<table>
<thead>
<tr>
<th>Funding Opportunity</th>
<th>Funding Limit</th>
<th>Funding Term</th>
<th>Deadline</th>
<th>Eligibility</th>
<th>Post Award Expectations</th>
<th>Additional Information</th>
</tr>
</thead>
</table>
| Research Center Pilot Grants (including Emory & GA Tech based centers) | $50,000 (some GA Tech are $60K) | 12 months    | Usually mid-winter; Emory-based are due roughly every other year and GA Tech-based offered every year | 1. Must include a member of the center and/or member of Children's medical staff  
2. GA Tech Pediatric Technology Center (PTC)--must also include member of GA Tech faculty | 1. Must provide annual report specifying related publications, grant applications submitted and extramural funding received.  
2. Must apply for extramural funding within one year of project conclusion date. | [http://www.pedsresearch.org/research/resources/funding/pilot-grant-programs](http://www.pedsresearch.org/research/resources/funding/pilot-grant-programs) |

### Imlay Innovation Fund

Intended solely to support collaborative activities and pediatric innovation and discovery efforts between Georgia Tech and Children’s, focusing on practical steps that will lead to clinical impact as well as potential commercial opportunities.

Two types of projects are eligible for funding:

1. **Quick Wins: Quick Wins (QW)** allows Children’s clinicians and clinical administrative leaders to bring problems that impact care delivery to the attention of scientists and engineers at Georgia Tech to help develop innovative solutions. Successful projects have ranged from pediatric specific surgical device development in partnership with a surgeon and biomedical engineer to improvement of workflow in a busy outpatient clinic in partnership with physicians, clinical administrative leadership, architectural researchers, and industrial engineers. Quick Wins supports projects that can be accomplished in 12-18 months and can be quickly translated into practice. It is possible, but not guaranteed, that a Quick Wins award could help to position an investigator for a successful Innovation Investment application (described below) within the 2 years following the QW award. Quick Wins awards will be funded up to $125K.

2. **Innovation Investment**: Innovation Investment is intended to help bridge the funding gap that often blocks the next phase of implementation or commercialization after initial proof of concept. Innovation Investment awards should allow investigators to collect much-needed data, complete further proof-of-concept studies, or to produce prototypes for testing in order to effectively compete for extramural or investment funding. Innovation Investment projects will typically be funded for a one-year period. Applications for multi-year awards will be accepted only with prior approval, and can receive a total of no more than $250K. An important part of the proposal is a potential for commercialization and/or implementation, as well as potential to positively impact child health.

For more information: [https://ptc.gatech.edu/imlay-innovation-fund-1](https://ptc.gatech.edu/imlay-innovation-fund-1)
# Additional Resources:

<table>
<thead>
<tr>
<th>Research listserv:</th>
<th>Website:</th>
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</thead>
<tbody>
<tr>
<td>Contact <a href="mailto:Barbara.Kilbourne@emory.edu">Barbara.Kilbourne@emory.edu</a> to be added to this listserv used to disseminate all pediatric research related announcements including seminars, funding opportunities, such as the BiRD (<em>Bringing in Research Dollars</em>), and the Weekly PREP (<em>Pediatric Research Events and Programs</em>).</td>
<td><a href="http://www.pedsresearch.org">www.pedsresearch.org</a></td>
</tr>
</tbody>
</table>

This is the central resource for research seminar info, contacts, cores, calendars, and forms.

<table>
<thead>
<tr>
<th>Emory Library Resources</th>
<th>Scottish Rite and Egleston Library Resources</th>
</tr>
</thead>
</table>
| • [http://www.healthlibrary.emory.edu/](http://www.healthlibrary.emory.edu/) | • [Christine Willis](mailto:Christine.Willis@childrens.org)  
Clinical Information Librarian, Inman Medical Library at Children's at Egleston  
404-785-1481 |
| • Ask a librarian: [http://health.library.emory.edu/about/contact/ask.php](http://health.library.emory.edu/about/contact/ask.php) | • [Kate Daniels](mailto:Kate.Daniels@childrens.org)  
Clinical Information Librarian at Scottish Rite  
404-785-2157 |
|                         | • If you have access to Careforce — use the following link: [http://careforceconnection/Departments/HumanResources/Learning%20Services/LibrarServices/Pages/Home.aspx](http://careforceconnection/Departments/HumanResources/Learning%20Services/LibrarServices/Pages/Home.aspx) |
|                         | • If you do not have access to Careforce -- use the following link: [https://www.choa.org/medical-professionals/physician-resources/medical-libraries](https://www.choa.org/medical-professionals/physician-resources/medical-libraries) |