# Pharmacy Informatics Specialty Residency/Fellowship Programs

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<tr>
<td>UofL HealthCare</td>
<td>Louisville, KY</td>
<td>1-2 years</td>
<td>Project Management, Database, CPOE, Bedside Bar-coding, Smart Pump Technology, Clinical Decision Support, EMAR, EHR, Wireless/Paperless initiatives, Hardware/Software Systems Support, Teaching Opportunities</td>
<td>At the discretion of the resident, informatics coordinator, and clinical preceptors</td>
<td>None</td>
<td>One primary plus multiple projects based on facility priorities</td>
<td>Orientation, Project Management, End User Training and Support, Research/Study Support, Intelligent Clinical Decision Support Options, Database Design/Utilization/Mining, Infrastructure, Interface and HL7</td>
<td>At the discretion of the resident, informatics coordinator, and clinical preceptors</td>
<td>At the discretion of resident and clinical preceptors</td>
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<tr>
<td>University of Michigan</td>
<td>Ann Arbor, Michigan</td>
<td>1 year (PGY2 only)</td>
<td>Prepare pharmacists to be leaders in informatics. Education will include technology concepts, project management, informatics research and education. Residents will be exposed to a wide variety of informatics topics and experiences.</td>
<td>One weekend kinetic coverage monthly and one major plus one minor holiday</td>
<td>None</td>
<td>Projects vary depending on availability: two publishable papers</td>
<td>Tailored to the resident’s career goals</td>
<td>Clinical staffing on required weekends only</td>
<td>Clinical staffing on required weekends only</td>
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<tr>
<td>Sentara</td>
<td>Norfolk, Virginia</td>
<td>1 year</td>
<td>Database design, maintenance, and reporting, CPOE/EMAR implementation, LAN/WAN technology, clinical decision support, interfaces, applications development, vendor relations, smart pump project, wireless technology initiative</td>
<td>At the discretion of resident and clinical preceptors</td>
<td>None</td>
<td>One major longitudinal project of publishable quality and multiple small projects throughout the year</td>
<td>Project management, infrastructure, clinical decision support, databases and applications, interfaces</td>
<td>At the discretion of resident and clinical preceptors</td>
<td>Four 8-hour shifts per month</td>
</tr>
<tr>
<td>University Health Care (Utah)</td>
<td>Salt Lake City, Utah</td>
<td>1-2 years</td>
<td>Healthcare informatics with an emphasis on clinical applications, CPOE/e-MAR implementation, pharmacy automation, and private industry (TheraDoc).</td>
<td>Varies depending on clinical site, but similar to practice residents</td>
<td>None</td>
<td>Varies depending on project availability, one major residency project required, project is presented at the Western States Residency Conference.</td>
<td>Tailored to the resident</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Boston, Massachusetts</td>
<td>Boston, Massachusetts</td>
<td>2 year fellowship</td>
<td>Healthcare informatics, research techniques. Design, develop, test, implement, and interventions that affect medication use. Measuring change related to an intervention will give the fellow the ability to conduct independent research</td>
<td>Occasional teaching responsibilities at Massachusetts College of Pharmacy &amp; Health Sciences-Boston</td>
<td>None</td>
<td>Minimum one, flexibility based on fellow’s skills and interest</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>St. Louis, Missouri</td>
<td>St. Louis, Missouri</td>
<td>1 year residency</td>
<td>Clinical informatics (decision support, automated guideline monitor, CPOE and e-prescribing). Related research areas include acute care, managed care (PBM), and community pharmacy.</td>
<td>Variable clinical and teaching responsibilities in the area of pharmacovigilance.</td>
<td>None</td>
<td>Multiple projects with at least one primary/longitudinal</td>
<td>None</td>
<td>None</td>
<td>Possible (daytime only)</td>
</tr>
</tbody>
</table>

**Residency directors and contact information**

- **Amey C. Hugg, R.Ph., CHPIMS**
  - University of Louisville
  - Phone: 562-3409
  - Email: ameyhu@ulh.org
  - [Link](http://www.uoflhealthcare.org/NursesPharmacistsandHealthProfessionals/Pharmacy/Departments/50Informatics/Speci
  cityResidency/tabid/534/Defaul
  t.aspx)

- **Scott McCreadie, Pharm.D, MBA**
  - University of Michigan
  - Phone: 734.615.2185
  - Email: smcc@umich.edu
  - [Link](http://www.pharm.med.umich.edu/pysite/residencies/informatics/)

- **J. Miller Trimble, Pharm.D**
  - University of Utah
  - Phone: 801.585.2188
  - Email: trimbljm@sentara.com
  - [Link](http://www.sentara.com/Sentara/Employee/Pharmacy/Residency/PharmacyInformatics.htm)

- **Craig Herzog, RPh, MBA**
  - Brigham & Women’s Hospital
  - Phone: 617.732.5500 x33063
  - Email: craig.hertzog@bwh.harvard.edu
  - [Link](http://www.brighamandwomens.org/primarycare/PDF/Pharmacy/Fellowship.pdf)

- **Andrew C. Seger, Pharm.D**
  - Brigham & Women’s Hospital
  - Phone: 617.732.5500 x33063
  - Email: aseger@partners.org
  - [Link](http://www.brighamandwomens.org/primarycare/PDF/Pharmacy/Fellowship.pdf)

- **Terry Seaton, Pharm.D, FCCP, BCPS**
  - St. Louis College of Pharmacy
  - Phone: 314.446.8524
  - Email: tseaton@stlcop.edu
  - [Link](http://www.stlcop.edu/academics/residencydescription.asp?id=4)
## Pharmacy Informatics Specialty Residency/Fellowship Programs

<table>
<thead>
<tr>
<th>Location</th>
<th>Nashville, TN</th>
<th>San Diego, CA</th>
<th>Portland, Oregon</th>
<th>Tampa, FL</th>
<th>Hershey, Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of program</strong></td>
<td>1 year (PGY-2 Preferred)</td>
<td>1 year</td>
<td>1 year (PGY2 only)</td>
<td>1 year</td>
<td>1 year (PGY-2 only)</td>
</tr>
<tr>
<td><strong>Informatics education</strong></td>
<td>Information/Project Management, project lifecycle, technology infrastructure, integration/Interface, implementation, CPOE, EMR, BCMA, pharmacy automation, vendor relations</td>
<td>Information/project management, teaching, research, decision support, data warehousing, internet-based applications, CPOE/Electronic Medical Record/BCMA maintenance, pharmacy automation</td>
<td>Information/project management, teaching, research, decision support, data warehousing, internet-based applications, training, drug information/drug policy, CPOE/EMR, evidence based medicine, vendor relations, pharmacy automation</td>
<td>Informatics program is based on core educational material from the American Medical Informatics Association and includes training in the VA's Hospital Information Systems. The program partners with industrial engineering departments of two universities to expose the resident to the more technical aspects of Informatics. Contact Program for more information.</td>
<td>Pharmacy information systems, &amp; automation, CPOE, Clinical Decision Support, clinical documentation, process/workflow re-design, database confidentiality, security, project management, system testing, user training, maintenance, and support. Strong multidisciplinary focus. Partnership with Cerner permits experience in commercial software design and implementation.</td>
</tr>
<tr>
<td><strong>Degree/certification opportunity</strong></td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>Clinical responsibilities</strong></td>
<td>Mixed clinical and technical rotations at the discretion of the resident and clinical preceptors</td>
<td>At the discretion of resident and clinical preceptors</td>
<td>Varies depending on clinical site, but similar to practice residents</td>
<td>At the discretion of the resident and preceptor.</td>
<td>At the discretion of the resident and preceptors</td>
</tr>
<tr>
<td><strong>Required clinics</strong></td>
<td>Tailored to the resident</td>
<td>Tailored to the resident</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>Informatics projects</strong></td>
<td>Multiple projects with at least one primary/longitudinal</td>
<td>Projects vary depending on availability</td>
<td>One 1-year long project and multiple smaller projects involving bar-coding, pharmacy automation and roles in the new OHSU Health Information System initiatives depending on availability</td>
<td>One major project and various smaller projects involving automation and project management.</td>
<td>One major project, and multiple small projects throughout the year</td>
</tr>
<tr>
<td><strong>Required rotations</strong></td>
<td>Tailored to the resident</td>
<td>No rotations, longitudinal residency</td>
<td>Medication safety, drug information/drug policy, experiences are longitudinal</td>
<td>No elective rotations are required but will be allowed with mutual consent of the resident and program director.</td>
<td>Clinical Workflow, Clinical Informatics, Medication Safety, Technology (Hershey and Cerner), Maintenance &amp; Support, Decision Support, Project Management, Pharmacy Finance, Software Development</td>
</tr>
<tr>
<td><strong>Staffing</strong></td>
<td>Every fourth weekend plus two hours each week, one holiday per year</td>
<td>Not required if resident has previous staffing experience as a general resident or as a pharmacist</td>
<td>Optional Schedule to be determined</td>
<td>Optional with dual appointment.</td>
<td>Required – Schedule will be determined</td>
</tr>
<tr>
<td><strong>On-call pager responsibility</strong></td>
<td>Schedule varies</td>
<td>None</td>
<td>Schedule varies</td>
<td>None</td>
<td>Required – schedule varies</td>
</tr>
</tbody>
</table>

### Residency directors and contact information

- **Vanderbilt Medical Center**
  - Director: Mike Brownlee, MS, Pharm.D. (brownlem@ohsu.edu)
  - Informatics Pharmacist: Nicholas A Coblio, BSPharm, MSEM, PhD(abd), RPh (nicholas.coblio@va.gov)
  - Location: Nashville, TN 37232-7610
  - Phone: (615) 936-1992
  - Email: brownlem@ohsu.edu
  - Website: [http://www.ohsu.edu/pharmacy/residency/informatics](http://www.ohsu.edu/pharmacy/residency/informatics)

- **VA San Diego Healthcare System**
  - Director, Pharmacy Data Applications: Daniel Boggie, Pharm.D. (daniel.boggie@va.gov)
  - Director, Pharmaceutical Integrated Technologies: Jennifer Howard (jennifer.howard@va.gov)
  - Location: San Diego, CA 92161
  - Phone: (475) 652-9895 x 3026
  - Fax: (858) 552-7982
  - Email: daniel.boggie@va.gov

- **Oregon Health & Science University**
  - Location: Portland, OR 97239
  - Phone: (503) 444-0604
  - Email: brownlie@ohsu.edu
  - Website: [http://www.ohsu.edu/pharmacy/residency](http://www.ohsu.edu/pharmacy/residency)

- **James A. Haley Veterans Hospital**
  - Location: Nashville, TN 37232-7610
  - Phone: (615) 936-1992
  - Email: brownlem@ohsu.edu
  - Website: [http://www.vnh.med.vt.edu](http://www.vnh.med.vt.edu)

- **Penn State Milton S. Hershey Medical Center**
  - Location: Hershey, PA 17033-0855
  - Phone: (717) 531-7296 (voice mail)
  - Email: brownlem@ohsu.edu
  - Website: [http://www.hmc.psu.edu/pharmacy/Rresidency/informatics/informatics.html](http://www.hmc.psu.edu/pharmacy/Rresidency/informatics/informatics.html)