

AGC Biologics P-TECH Internship Description

Company description:

AGC Biologics is a leading global Contract Development and Manufacturing Organization, with a deep commitment to improving life quality by bringing new biopharmaceuticals to market. Because of our dedication to building and empowering our internal teams, AGC Biologics is an innovative leader in the industry with an extensive network of cGMP facilities in the US, Europe and Asia. As such, we deliver a deep expertise, dynamic solutions and technologies, as well as customized services, from development through cGMP manufacturing of cell and gene therapy-based therapeutics. We forge exceptionally strong partnerships with our clients, and we never lose sight of our pledge to deliver a reliable, compliant, and customer-focused solutions, Right, On time.

Internship description:

Potential Internship Tasks:

Quality

- Participate in the development and review of new and revised GMP procedures and protocols.
- Participate in the review and archival of executed GMP documents.
- Analyze performance data across quality systems and report on trends.
- Research regulatory compliance requirements and assess applicability to facility policies and practices.
- Participate in equipment validation execution and coordination.
- Shadow senior quality staff to gain experience with core quality systems such as change control, work order, deviations and CAPA management.
- Support Supplier Qualification Part Number Requests, Material Specification creation and supplier qualification activities.
- Execution of training assignments and other training documentation.
- Ensure compliance with company quality systems, safety procedures, and other company policies.

Manufacturing

- Attendance of a GMP Manufacturing Basic Skills course to gain a general understanding of GMP Manufacturing operations
- Observe Manufacturing unit operations under the guidance of higher level Manufacturing Associates
- Possible excursions to the Boulder manufacturing site to observe GMP operations if the Longmont site is not in GMP production
- Perform bioprocess operations such as filtration, purification, cell culture or recovery
- Clean, assemble/disassemble, sterilize and operate primary process equipment
- Ensure compliance with company quality systems, safety procedures, and other company policies

Qualifications and/or Expectations:

- Experience in relevant math, science and engineering disciplines
- Basic understanding of equipment and technology as applies to job function
- Working knowledge of business practices used by company
- Ability to manage time efficiently and effectively
- Ability to interact constructively with peers and support groups
- Due to the nature of manufacturing, shifts can vary. Shift preference may not always be available upon request.
 - Current Enrollment in High School
 - Computer skills including Excel and Word

Covid vaccine or testing requirements to be adhered to. As of 2/27/2023, there are no testing or mask requirements. Please note this is subject to change

Dress code : Long pants, closed toes shoes

Date Range of Internship:

- June 6 – July 14, 2022 (with 4th of July off) – We are going with this for now, but may be changed based on a PTECH meeting we have in 2 weeks.

Expected Days and Hours of the Work Week: (145 Total Hours required)

- Mon, Tues, Wed, Thursday
- 9am-3pm

Pay Rate: \$15.75

Agilent Technologies P-TECH Internship Description

Company description:

Agilent is a leader in life sciences, diagnostics and applied chemical markets. The company provides laboratories worldwide with instruments, services, consumables, applications, and expertise, enabling customers to gain the insights they seek. Agilent has two Colorado facilities, one located on Airport Blvd in Boulder CO and a second new facility located on Tipple Pkwy in Frederick Colorado. Both facilities manufacture therapeutic nucleic acid (RNAi) for its customers.

Internship description:

A learning experience of how therapeutic nucleic acid (RNAi) is manufactured and tested. An End-to-end experience of shadowing and hands on activities led by various individual departments and functions. Training to provide safety awareness prior to the experiential learning with each department that will be part classroom, laboratory, and manufacturing facility settings.

Potential Internship Tasks:

- **Orientation and Safety (Training and EHS Team)**
 - Learn standard safety practices and onboarding practices for modern pharmaceutical plant and all the departments that contribute to its functioning
 - Activities may include operational overview, PPE training, safety training, hygiene, access limits, terminology usage, interactive problem-solving
- **Overview of Agilent's Life Science Business and History, Agilent's Nucleic Acid Therapeutics Business (Business Development Team)**
 - Learn about Agilent and its Life Science business, ecosystem, therapeutic RNA and usage for medicine, terminology,
 - Activities may include researching terminology, finding information on the web, interactive problem-solving
- **Facilities and Equipment Overview and Activities (Facility and Engineering Teams)**
 - Learn about Agilent's Nucleic Acid manufacturing facility components and equipment, purpose, design, installation, qualification, operation.
 - Activities may include in depth tours of the various facility components, facility equipment, installation, calibration, maintenance, monitoring, researching terminology, finding information on the web, interactive problem-solving
- **Chemical Development Role in Manufacturing Process and Test Methods (Chemical Development Team)**
 - Learn about how Agilent develops Nucleic Acid manufacturing processes and controls (tests)
 - Activities may include in laboratory tours, inspection and operation of small-scale manufacturing and testing equipment, "mock" batch purification and testing, researching terminology, finding information on the web, interactive problemsolving
- **Quality Control and Assurance Role in Manufacturing (Quality Control and Assurance Team)**
 - Learn about how Agilent controls(tests) the quality of the drug substance batches it produces, how the quality is assured (verified), how the facility is controlled for its purpose,

- Activities may include facility and laboratory tours, oversight activities, batch testing of “mock” batch materials in the QC labs, assessment of “mock” batch documentation, researching terminology, finding information on the web, interactive problem-solving
- Closing Event “How Therapeutic RNA is Manufactured at Agilent”
 - Students present on “How Therapeutic RNA is Manufactured at Agilent” including
 - What was the most interesting things each of you learned?
 - What (job) would you want to learn more about or possibly pursue and why?

Qualifications and/or Expectations:

- Completion of Junior year (high school eq.) with 2.5 GPA or >
- Dress code (closed toe shoes, long pants, casual and clean)

Date Range of Internship:

- June 5 – July 13, 2023 (with 4th of July off) *July 17 “make-up day” if necessary due to illness

Expected Days and Hours of the Work Week: (135 Total Hours required)

- Mon, Tues, Wed, Thursday
- 9am-4pm

Pay Rate: \$15.75/hour

CORDEN PHARMA

Position Description

Job Title: P-TECH Intern
Department: Technical Operations
Reports To: Internship Coordinator
Prepared Date: Feb 2023

Company Description

Corden Pharma is a leading full-service contract development and manufacturing organization (CDMO) of active pharmaceutical ingredients (APIs), excipients, and pharmaceuticals Drug Products (DP) and packaging capabilities with > 2,600 employees across the world. Our services enable pharmaceutical and biotech companies to manufacture medicines with the ultimate goal of improving people's lives.

The two Corden Pharma sites in Boulder, CO (55th St. and Sterling Dr.) produce Peptides, Lipids, and Small Molecule APIs that are used to treat a variety of indications, including cancer, diabetes, high cholesterol, obesity and COVID-19.

Internship Description:

After a one-week New Employee Orientation (NEO), Interns will rotate through various departments at the 55th Street site to learn about the pharmaceutical manufacturing process. The Interns will work closely with subject matter experts in manufacturing, quality, warehouse, engineering, HR, and SHE (Safety, Health, and Environmental) departments. The final week will be used to summarize what was learned during the internship and present their learnings.

Qualifications and/or Expectations:

- Completion of Junior year (or equivalent) with a 2.5 GPA
- Dress code (closed toe shoes, no sleeveless shirts, long pants)
- Willingness to learn and be professional

Date Range of Internship:

- May 30th – July 27th (with week of 4th of July off)

Expected Days and Hours of the Work Week: (135 Total Hours required)

- Tues, Wed, Thursday
- 9:00 am - 3:30 pm
- 3 days/week * 6 hr/day = 18hr/week *8 weeks = 144 hr



KBI Biopharma Eagle Tech (P-TECH) Internship Description

Company Description:

KBI is a biopharmaceutical Contract Development and Manufacturing Organization (CDMO) that accelerates the development of innovative discoveries into life-changing biologics and expands global access of medicines to patients in need. KBI was founded in 1996 and operates 8 facilities: Durham, Patriot Park and Venture Center (NC), Boulder and Louisville (CO), The Woodlands (TX), Leuven, Belgium and Geneva, Switzerland.

Internship Description:

A learning experience of how KBI helps clients in developing and manufacturing proteins. An end-to-end experience of shadowing along with hands on activities led by various departments and functions. Training to provide safety awareness prior to the experiential learning with each department that will be part classroom, laboratory and manufacturing facility settings.

Potential Internship Tasks:

- Orientation and Safety – MFG/EHS&S
- Facilities and Engineering Overview and Activities – FE
- Process Development and Analytical Formulation Sciences Roles in the Manufacturing Process + Test Methods – PD/AFS
- Learn how KBI develops a process for therapeutic proteins – PD/MST
- AFS related activities may include -AFS
 - Laboratory area tours
 - Equipment observation for analysis
- Manufacturing MFG related activities may include – MFG/MST
 - Gowning, Facility Flow, Cleanroom behaviors and Aseptic Tech.
 - Classroom Training
 - Demonstration
 - Production area tours
 - Equipment observation for prep or cleaning
 - Equipment visual inspection
 - Operation of basic lab equipment
 - “Mock” batch production activities
- Process Development related activities may include - PD
 - Research and process terminology
 - Interactive problem solving
- Quality Assurance Role in Manufacturing – QA



- HR related activities may include – HR
 - Resume Writing
 - LinkedIn profile creation
 - Interviewing Skills

Qualifications and/or Expectations:

- Completion of Junior year (or equivalent) with a 2.5 GPA
- Dress code (closed toe shoes, long pants, masks)

Date Range of Internship: (must fall between May 31 – Aug 12, 2022)

- June 5, 2023 – July 20, 2023 (with week of 4th of July off)

Expected Days and Hours of the Work Week: (135 Total Hours required – working to have between 140-145 hours)

- Days: Monday, Tuesday, Wednesday, Thursday
- Hours: 9:00 am - 3:30 pm
- 4 days/week ~ 6hr days = 24hr/week with a 30 minute paid lunch ~ 6-week program (4th of July Holiday week off)

Pay Rate: \$15.75/hour

Tolmar P-TECH Internship Description

Company description:

We are a fully-integrated pharmaceutical company in **Fort Collins** and **Windsor**, meaning we develop new products, formulate generic products, scale them up to manufacturing and commercialize them (sell and distribute). Our flagship drug is Eligard, a specialty injectable for the palliative care of advanced prostate cancer. Our other products are either injectables or generic topical dermatology products for various skin conditions.

Internship description: P-TECH Interns will experience all aspects of pharmaceutical development, manufacturing and distribution. As many hands on experiences will be given as possible while maintaining the safety, quality and integrity of our products.

Potential Internship Tasks:

Week 1 - Orientation and Training; meet with mentor (if mentor is based at Tolmar); tour of facilities; access SOPs and Work Instructions; email access

Week 2 - Field Study: Operations, Lean and Facilities Engineering; interviews; Production records (Right the First Time & CLIDE); clean room gowning; cGMP; operate under the direct supervision of a Lead Operator and/or Production Supervisor (throughout)

Week 3 - Field Study: Microbiology Lab & Environmental Monitoring; make media; shadow plating; interviews; facility cleaning of manufacturing areas as required to maintain a cGMP environment and in accordance with SOPs

Week 4 - Field Study: Quality Lab, Quality Control & Quality Assurance; shadow sample analysis; interviews; assist in set up and operation of final packaging equipment (cartoners); ensure that product quality adheres to approved specifications

Week 5 - Field Study: Research & Development Labs; make lotion; interviews; properly load subcomponents into final packaging equipment

Week 6 - Field Study: Polymer Labs; polymer experiment; interviews; properly perform the Done By function on batch records in accordance with cGMP standards; wind down week; celebration

Week 7 -

Qualifications and/or Expectations:

- Completion of Junior year in good academic standing
- Dress code: closed toe shoes, long pants (jeans are fine)
- Transportation: Most activities will occur in Fort Collins (with a limited number in Windsor) and each day will be assigned to one facility only (no vehicle travel to multiple facilities on the same

day). Interns will be required to provide their own transportation to and from the assigned location for that day.

Date Range of Internship:

June 5 – July 20, 2023 (with day of 4th of July off)

Expected Days and Hours of the Work Week: (135 Total Hours required)

- Mon, Tues, Wed, Thursday
- 9am-2:30pm with 30 minute lunch break (5 hours/week for 7 weeks minus 5 hours from Holiday = 135hrs) **makeup time as needed on Fridays set up individually as needed*

Pay Rate: \$15.75/hour