A Day in the Life Video Series

Educator toolkit for BCSI's national video series

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National Center for Therapeutics Manufacturing

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SECTION 1

About BCSI

National scope, credential recognition, and employer trust

BCSI is a national 501(c)(3) organization that delivers performance-based practical skills assessments and digital microcredentials for the bioscience and biomanufacturing workforce.

BCSI is recognized as an Industry-Recognized Credential (IRC) in Massachusetts, Michigan, Missouri, Texas, and Kansas, with additional state approvals under review.

For educators, the question behind every microcredential is simple: can a student actually do the skill, not just recognize it on a quiz? BCSI microcredentials answer that question directly. Each one documents what a student can do, how that skill was assessed in a real-world setting, and why an employer can trust the result. The credential is specific to a skill, verifiable by anyone who reviews it, and portable across programs and employers.

What makes a BCSI credential trustworthy in the classroom: assessments are delivered in person by certified evaluators who test practical skills at the bench, not through an online quiz or a student's own report of their ability. Performance is observed directly and scored against the same standardized criteria every time.

Why This Matters for Educators

- A microcredential gives a student proof of ability that goes beyond a course title or a grade on a transcript.
- It documents real competency, not just seat time or exposure to a topic.
- It ties classroom instruction directly to the skills employers are hiring for, rather than to abstract learning outcomes.
- It builds a bridge from the classroom to a career without requiring new courses or additional credit hours.

Why Employers Value the Same Credential

- A validated skill reduces the risk of a bad hire.
- It shortens onboarding and gets a new employee to full productivity faster.
- It supports skills-based hiring and internal promotion.
- It offers a clearer signal than a degree alone for many technical roles.

This is also why the credential holds value once a student leaves the classroom. Employers across BCSI's growing national network, including MilliporeSigma, Thermo Fisher, Kite Pharma, Pfizer, AstraZeneca, Boehringer Ingelheim, PCI Pharma Services, Catalent, and others, use BCSI credentials as a hiring signal. Because every assessment is performance-based, delivered in person by a BCSI Certified Evaluator, and scored against the same standard nationwide, the credential keeps its meaning as more programs and employers adopt it.

SECTION 2

About This Toolkit

Purpose, contents, and how to use this resource

The A Day in the Life video series follows real professionals working across the biotechnology and biomanufacturing industry nationally. Each video features an employee describing the path that led to their career, the skills they use every day, and the challenges they overcame along the way.

This toolkit helps educators use these videos in the classroom to spark discussion, introduce students to biotechnology career pathways, and connect course content to real-world applications. The profiles in this toolkit reflect a range of paths into this national industry, including career changers, first-generation students, immigrant families, and employees who entered the field without a traditional science degree.

Each Video Profile Includes

- A short description educators can use to introduce the video
- Key themes and vocabulary
- Discussion questions for use before, during, or after viewing
- Classroom use ideas connecting the video to lessons, units, or advisory periods

How to Use This Toolkit

Educators can use these videos as a single-lesson warm-up, an anchor for a careers exploration unit, or a discussion starter tied to a specific content area such as biology, chemistry, or career and technical education. Full episodes and short clips of each video are available through BCSI's video library.

Watch the full series: A Day in the Life video series (bcsi.bio)

SECTION 3

Christie Bellas Dion

Principal Scientist, Pfizer

Video Theme: Career Changer

Watch the video: Christie Bellas Dion, A Day in the Life (YouTube)

Video Description

Christie Bellas Dion did not follow a single straight path to becoming a principal scientist. She worked her way through her undergraduate degree in biology, questioned whether science was the right fit for her during a difficult organic chemistry class, and later, as an adult in graduate school, was diagnosed with ADHD.

Her story shows students that succeeding in science does not require a perfect academic record or one standard way of learning. It requires persistence, curiosity, and a willingness to try something new when a career no longer feels aligned with personal values.

Key Themes and Vocabulary

Nontraditional career paths, learning differences (ADHD), persistence, career change, and values alignment.

Discussion Questions

1. Christie says, "you don't have to look a certain way to be a scientist." What do you think she means by this?
2. Christie almost gave up during organic chemistry, yet later became an organic chemist. What does her experience suggest about setbacks in learning?
3. Christie left a previous job because her values no longer aligned with the company's values. Why might that matter as much as salary or title when choosing a career?
4. How did Christie's ADHD diagnosis change the way she understood her own learning?
5. What does Christie mean when she says, "if nothing changes, then nothing changes"?

Classroom Use Ideas

- Use as a discussion starter for a lesson on growth mindset or learning differences, paired with a short reflection on students' own study strategies.
- Have students identify a class they have struggled with and describe a strategy that helped or could help them push through, similar to Christie's note-card method.
- Connect to a lesson on quality control roles by having students research what a principal scientist does day to day in a laboratory setting.

SECTION 4

Emily Vanasek

Manager of Lab Operations, Pfizer

Video Theme: **Reinvention, Self-Belief, and Building a Life That Fits**

Watch the video: Emily Vanasek, A Day in the Life (YouTube)

Video Description

Emily Vanasek struggled academically throughout middle school, high school, and the start of college. Everything changed when she entered a hands-on dental hygiene program, where her grades improved because she was learning by doing rather than through papers and standardized tests. When the physical demands of that career became unsustainable, she took a chance on an open role at Pfizer.

Emily's story demonstrates that a person's academic record does not have to define their potential, and that biotechnology and pharmaceutical careers include many paths that do not require a traditional science degree.

Key Themes and Vocabulary

Learning by doing, career change, lab operations, non-degree pathways, and resilience.

Discussion Questions

1. Emily says she "really excelled at learning by doing." How is that different from the way most students are tested in school?
2. Emily points out there are "many ways even without a science degree to support this field." What kinds of biotechnology jobs might not require a four-year science degree?
3. Emily switched careers after her body could no longer handle the physical demands of dental hygiene. What does this suggest about planning for a long career rather than just a first job?
4. Emily describes lab operations as ensuring "the science cannot continue without the operational support." Why is this kind of behind-the-scenes work essential to a laboratory?
5. What does Emily mean when she says, "you're more capable than you think you are, even if you're not excelling in an academic setting"?

Classroom Use Ideas

- Pair with a career pathways lesson comparing lab operations, lab science, and lab support roles to show students that biotechnology careers exist beyond laboratory research.
- Use in a career and technical education or advisory class discussion comparing hands-on learning with test-based learning.
- Have students list the behind-the-scenes functions that keep a lab running, such as inventory and equipment maintenance, and research one in more depth.

SECTION 5

Jake Heitman

B4 Technical Expert, Pfizer

Video Theme: Hands-On Science

Watch the video: Jake Heitman, A Day in the Life (YouTube)

Video Description

Jake Heitman entered biotechnology with only a high school diploma and two semesters of general education college courses, after a friend's father connected him to a contract opportunity at a biotech company. With little background beyond knowing that biotech companies make medicine, Jake relied on curiosity and a willingness to learn on the job.

Within six months he felt confident in his role, and he now describes his work during the COVID-19 pandemic as giving him a sense of purpose he had not found in previous jobs. His story introduces students to entry-level pathways into biomanufacturing.

Key Themes and Vocabulary

Entry-level pathways, learning on the job, career exploration, transferable skills, and pandemic impact.

Discussion Questions

1. Jake says, "there isn't much that you can't learn on the job." Do you agree or disagree? Why?
2. Before starting his job, Jake knew almost nothing about biotechnology except that it made medicine. What does his story suggest about the value of curiosity over prior experience?
3. Jake found his opportunity through a personal connection rather than a job posting. What does this suggest about the value of networking, even for students who do not think they know anyone in a given field?
4. How did working on vaccines during the COVID-19 pandemic change the way Jake saw his own work?
5. If you could give advice to your younger self the way Jake does at the end of the video, what would you say?

Classroom Use Ideas

- Use to introduce entry-level pathways into biomanufacturing that do not require a college degree, especially in career and technical education or workforce readiness courses.
- Have students map the steps in Jake's story, from his retail job to a referral to six months of on-the-job learning, as a model for how nonlinear career paths often work.
- Pair with a discussion on transferable skills by asking which skills from a retail or customer service job might transfer to a biomanufacturing role.

SECTION 6

Logan Ardrey

Assistant Director, National Center for Therapeutics Manufacturing

Video Theme: **Mentorship and Access**

Watch the video: Logan Ardrey, A Day in the Life (YouTube)

Video Description

Logan Ardrey grew up in a small Texas town with little exposure to biotechnology, assuming that a career in health sciences meant becoming a doctor. An email forwarded from his uncle led him to a summer biomanufacturing camp that set him on the career path he has followed ever since.

Now an assistant director training the next generation, Logan is motivated by offering scholarships to students from lower-income communities who might not otherwise have access to this kind of training. His story highlights the role that mentorship and access play in building a biotechnology workforce.

Key Themes and Vocabulary

Mentorship, access and equity, biomanufacturing training programs, outreach, and paying it forward.

Discussion Questions

1. Logan says he "wasn't familiar with biotechnology or biomanufacturing" in high school. What exposure do you have to careers in this field, and where did that exposure come from?
2. An email from Logan's uncle changed the direction of his career. Who are the people in your life who might connect you to an opportunity you have not considered?
3. Logan mentions that scholarships allowed students from lower-income communities to access his summer camp. Why does access matter as much as interest when it comes to career pathways?
4. Logan says, "people's lives are on the line" in his work. How does knowing the real-world impact of a skill change the way someone might approach learning it?
5. What does it mean to pay it forward in a career, as Logan does by teaching the same camp he once attended as a student?

Classroom Use Ideas

- Use to introduce a lesson or unit on biomanufacturing camps, dual enrollment, or early college programs available to students.
- Have students research an outreach or scholarship program in the biosciences and present on who it serves and how to apply.
- Connect to a lesson on mentorship by having students identify a mentor in their own life and write about how that person influenced their goals.

SECTION 7

Oscar Ramirez

QC Microbiologist Senior Technician, MilliporeSigma

Video Theme: **Perseverance and Opportunity**

Watch the video: Oscar Ramirez, A Day in the Life (YouTube)

Video Description

Oscar Ramirez grew up in a household shaped by his family's immigration story, including his father's deportation and the family's eventual move to Kansas. A mentor teacher's flyer for a program called Bio Plus introduced him to a mentor who helped him build the confidence and interview skills needed to land his first job in biopharmaceutical manufacturing.

Oscar compares the persistence required in a laboratory to the persistence required in rock climbing, where falling is expected and progress comes from getting back up. His story connects perseverance, mentorship, and quality control careers.

Key Themes and Vocabulary

Immigrant family background, mentorship, confidence building, perseverance, and quality control.

Discussion Questions

1. Oscar compares working in a lab to rock climbing, saying, "you're going to fall a lot more than what you succeed in." How does this mindset apply to learning in general, not just science?
2. A teacher's flyer and a mentor's encouragement changed the direction of Oscar's career. What role can a single conversation or piece of information play in opening a door?
3. Oscar says he prepared for his interview by bringing his resume, lab notebook, and a cover letter. Why do preparation and professionalism matter, even for an entry-level opportunity?
4. What does Oscar mean when he describes finding "an ecosystem of people" he could rely on in this industry?
5. As a QC microbiologist, Oscar's job is to confirm that a facility and its products meet a required standard. Why is this kind of role critical to consumer trust in a manufactured product?

Classroom Use Ideas

- Use in a discussion of quality control and quality assurance careers, connecting Oscar's role to the broader idea of maintaining trust in manufactured products.
- Have students write about a time they had to get back up after a setback, connecting their own experience to Oscar's rock climbing metaphor.
- Pair with a lesson on mentorship programs like Bio Plus, and have students identify a similar program available in their own school or community.

SECTION 8

Sharee Adams-Hall

Senior Scientist, Analytical Sciences, Pfizer

Video Theme: **Curiosity, Motherhood, and a First-Generation Journey Toward Equity in Science**

Watch the video: Sharee Adams-Hall, A Day in the Life (YouTube)

Video Description

Sharee Adams-Hall grew up in Flint, Michigan, without seeing many scientists who looked like her, and became a first-generation college student determined to use science to help people. She married and started her family while still in college, at one point bringing her two-year-old son into a physics final exam when her childcare fell through.

Sharee later worked on the COVID-19 vaccine effort and describes the pride of knowing her own mother received the vaccine her team helped deliver. Her story connects representation, resilience, and purpose-driven work in science.

Key Themes and Vocabulary

Representation in STEM, first-generation college students, balancing family and career, vaccine development, and purpose-driven work.

Discussion Questions

1. Sharee says, "scientists look like everyone." Why might representation matter when students are picturing what a career in science looks like?
2. As a first-generation college student, Sharee says she "had the expectation to really carry that forward." What pressures or motivations come with being the first in a family to attend college?
3. Sharee brought her two-year-old son to a final exam when her childcare fell through. What does this story reveal about balancing responsibilities while pursuing a goal?
4. How did working on the COVID-19 vaccine change the way Sharee understood the purpose of her work?
5. Sharee imagines looking back someday and saying, "I had my small part in advancing that." Why might it be meaningful to see personal work as part of something larger?

Classroom Use Ideas

- Use to open a discussion on representation in STEM fields, especially in classrooms serving first-generation or underrepresented students.
- Have students research the COVID-19 vaccine development timeline and identify the range of roles, not only scientists, that made it possible.
- Connect to a lesson on balance and resilience by having students interview a family or community member about balancing responsibilities while pursuing a goal.