

Resources:

- www.thebmebroadcast.com – forward to other faculty and students!
 - Forward to your academic advisors whose job is to assist them in their career path
 - Forward to your undergraduate studies chair
- RIEF Grant Opportunity: <https://www.nsf.gov/pubs/2020/nsf20558/nsf20558.htm>

Presentation Overview:

- Goal: An early career podcast built for this with a biomedical engineering background. They discuss job roles, advice, and other relevant topics for career paths in medical device, pharmaceutical, and biotechnology industries.
- They aim to help by accelerating their journey to find the intersection of their background and passion with rapid exposure of what's out there and what's going on in the companies they are looking at.
- Show overview:
 - Founded January 2021
 - Bi-weekly 30-60 min episodes
 - Season 1: 30 episodes
 - Season 2: 25 episodes
 - 100-350 listens per episode
 - Promotion is only via word of mouth and social media, being found organically
 - Based in North Carolina, but get listeners from across the country
- Episode Themes:
 - Profiling job roles at different company types
 - Advice for applying for jobs (resumes/interviews)
 - Advice for students (Internships, career fairs, portfolios)
 - Highlighting the value of a BME education (mini-series, capstone courses)
 - Industry topics (job changes, Lean Six-Sigma)
- How We Track Success
 - Good, engaging content
 - That gives a fair representation of information
 - Which interests the people we are trying to help
 - And actually helps them
- Metrics
 - Is it good engaging content? Retention rates: 57%, 75%, 100% retention rates in last 3 episodes (those who started finished until end of show)
 - Average good podcast has an ~80% retention rate
 - interests the people we are trying to help: average age of listeners is between 18-27, which is the age of early career BMEs
 - Actually helps them: outreach from our listeners – reviews from listeners are overall positive and helpful
- Next Step – Growth Stage
 - Grow = more listeners + expanded network
 - More listeners = more data to improve, and more money to expand the team
 - Expanded network = partnering with the right KOLs to expand
- Ask:
 - Share with your network and your students
 - www.thebmebroadcast.com – landing page with all of the

- Feedback of goals, topics, format, ideas, trends observed in education

Discussions:

- Alexis Ortiz-Rosario – a lot of feedback is that “there are no BME jobs” because they are oftentimes not posted as “BME” but for something else
- Start with the nation – and forward to who are the academic advisors and undergraduate chairs
- Paul Gordon – U Cincinnati, see they are hitting on a need, have observed that a lot of the topics in the podcast are hard for educators to hit on while educating BME topics at the same time, great way to help students get these lessons in an extracurricular format
- Alexis – what challenges are BMEs facing in regards to finding jobs in industry, as opposed to graduate school, have seen struggling with what to do and how to sell self. Has seen synergy on education research, have Allie and Brian done any education research on it? On a national level, understand what the problem is and what can we do as educators to help, may be a good RIEF grant idea
- Paul – where do you see it going and what are the opportunities?
 - Allie – we need to get to a point of monetizing to keep up with the schedule so they can do it in addition to their day jobs, next year see indicators to show it can have long term growth, continue improve concepts through end of season 2, find right partner to help us keep it going
 - Brian – looking for company and sponsors from institutions to help with the loss – eg copyright, audio clips, etc. to help with scaling it up
- Paul – there is a lot of data that can be shared around a podcast, can you engage people in a deeper extension of the episodes through discord, slack etc?
 - Brian – discord can help, provide forum to give input on questions as well directly from the audience for future episodes, also allows for networking and discussion among listeners
 - Brian- starting content collaborations with a YouTube content creator as well
 - Alexis – suggested Patreon – college students pay for exclusive content - <https://www.patreon.com/>
 - Allie – perhaps use Patreon for educator content, such as conversation with Aliien at BED
 - Allie – goal to collaborate with YouTube curator who is looking at prospective BMEs, make a collaborative event with her
 - Allie – want answers from guests in industry and educators and build community
- Alexis – you gain expertise through experience, so you are now an educator within the umbrella of education, context that you have now can make you an expert in that field without the need to know the educational framework
- Paul - you would be surprised the enthusiasm behind the use of a Patreon, has seen in self and students a desire for clarity and those who are here because they care and want to be intentional in their career trajectory
 - Alexis – the fees don’t have to be high, \$5 here or there
 - Ethan Geheb University of Maine – echo sense of community, students are competing w state of Massachusetts, students would appreciate sense of community to have a sense of what jobs are like in the community, and professors are always working overtime, so hard to keep up with what is happening in industry community, so would help being able to send students there
 - Ethan – may be helpful getting tied into the professional societies – BMES and ASEE BED
 - Alexis – stay in touch, as most of us have crossovers across these organisations – Aileen, Alexis, Christine, all in BMES and ASEE BED, talk to Aileen as she does newsletters for ASEE BED, Alexis does newsletters for BEEC, Alexis working on community for BMES
- Alexis – will send these out to newsletters, and advise to send them to academic advisors to increase listeners
- Brian – what kind of trends are you seeing with education and how does it fit in the episodes?
 - Paul – topics he’s interested in and don’t have answers to for students: value of graduate school vs. industry in career trajectory, what are major BME specialties and focus areas in graduate school that they may not be aware of (each school has a specialization silo), what does it look like to be a BME who does BME optics and what does it look like in the field – clinical, research, industry, and do this for a

bunch of different specializations. Bring in analysts to show exemplar from industry (Thor Labs), clinic (med school), and research (academia), and how it's applied – can be 3 episodes in 30 min bites

- Paul – could explore and focus around topics, and how they change across three
- Alexis – research is tailored around career pathways – what are traditional outlets of students and show what this is what industry looks like through xyz lens, this is what grad school looks like at MS, MEng, PhD in xyz lens, where xyz is the specialty
- Paul – always get asked which minor to take? Think about being effective in transferring knowledge, but also convince students to care, inspiration is needed to get them to be convinced that material of knowledge transferred is useful in their lives, and “why it's useful now in their jobs”
- Ethan – content may have changed, but “why we bother with statistics” has not, and provide element of intrinsic motivation
- Alexis – highlighted same, what is valuable
- Allie – why is what you are learning valuable in BME and in industry, can change framework on themes in episodes
- Alexis – skills episode, reword content on what you generated that is more seamless and focused, reframe of what skill in industry (eg stats) became useful
- Allie – miniseries focused on certain topics, perhaps deep dive of certain skills
- Paul – since engaging across disciplines – industry, education, etc, may also be able to find stakeholders who are a part of work on a policy and government workforce development can help and use this
- Paul – BME is not just about those who create and research biotechnology, but it's also about those who use it and fix it, and AAME – American association of medical instrumentation, professional community that touches other side of BME technology, all BME technologists – need more BME technologists because they are aging out, may be worth exploring