Multipurposing Interesting Clinical Cases to Meet Diverse Medical Student and Resident Physician Research and Educational Skill Sets and Curriculum Vita Needs

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BACKGROUND

• Medical students need to develop academic skill sets that include the identification of interesting cases that may offer value when presented as archetypal manifestations of pathology or when used to exemplify different pedagogical approaches, both of which can be developed into abstracts and presentations for scientific meetings and/or into manuscripts for submission to journals for publication.
• In addition to these scholarly endpoints, capitalization upon these cases for local use allows interested students to develop teaching skills (including how to present a case in and of itself) that will aid them throughout their academic careers.
• The journal Academic Pathology has created an Educational Case series with the goal of presenting preclinical medical student teaching materials focused on a set of learning objectives predetermined by practicing physicians as essential foundational knowledge, providing a great target for manuscripts; other journals with a case report section or focus can also be targeted for manuscript submission.

RESULTS

Figure 2. Meetings and Presentations: 2017 - 2021

East Carolina Chapter of the Society for Neuroscience (ECCSFN) Annual Meeting Presentations

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Presentations</th>
<th>Medical Students</th>
<th>Medical Students Residents</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology Grand Rounds Presentations</td>
<td>12 Total</td>
<td>12 Medical Students</td>
<td>12 Medical Students Residents</td>
<td>15 Citations</td>
</tr>
<tr>
<td>M1 Neuroscience Course Presentations</td>
<td>10 Total</td>
<td>10 Medical Students</td>
<td>10 Medical Students Residents</td>
<td>15 Citations</td>
</tr>
<tr>
<td>College of American Pathologists Annual Meeting</td>
<td>8 Total</td>
<td>8 Medical Students</td>
<td>8 Medical Students Residents</td>
<td>10 Citations</td>
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<tr>
<td>American Association of Neuropathologists Annual Meeting</td>
<td>8 Total</td>
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<tr>
<td>Local Meetings and Presentations</td>
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<td>National Meeting Presentations</td>
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<td>51 Citations</td>
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</tbody>
</table>

Figure 3. Examples of Presentations with Multipurposing

East Carolina Chapter of the Society for Neuroscience

Radiation-Induced Meningioma after Successful Treatment of Medulloblastoma, Acute Lymphoblastic Leukemia, and Langerhans Cell Histiocytosis During Childhood

Pathology Grand Rounds
Joel Nortey, M4
Brody School of Medicine
East Carolina University

Case 3
68-Year-Old Woman with Enlarging Scalp Lesion, Multiple Smaller Lesions on Scalp and Body

M1 Neuroscience Course Presentation
Arjun Bhatt, M2

Figure 1. Students Presenting at East Carolina Chapter of the Society for Neuroscience 2019 Meeting

MATERIALS & METHODS

• Neurologic, ophthalmologic, and musculoskeletal cases demonstrating pathology of interest were identified by faculty, residents, and students.
• Cases typically demonstrated classic, pathognomonic, and in many cases rare findings.
• Cases were presented as poster or platform presentations at the East Carolina Chapter of the Society for Neuroscience (ECCSFN).
• Selected cases presented at the ECCSFN meeting were subsequently presented at Department of Pathology and Laboratory Medicine Grand Rounds sessions or other local conferences and/or at national conferences.
• The number of presentations between 2017 and 2021 and the number of medical students and residents involved with the presentations were tabulated.
• A literature search was conducted using relevant key words.

LITERATURE REVIEW

• Relatively scant literature was identified addressing the value of medical student participation in research activities with no references focused on pathology-related projects.
• Articles cite boosting the curriculum vitae / profile of medical students involved with research with implications for residency matching and long-term implications regarding future academic positions.
• Research also was cited as important in the development of scholarship and research skill sets, positioning students for success in future research projects.
• Research was cited as engendering an understanding and internalization of evidence-based medicine.

DISCUSSION

• Interesting cases can be presented as case or series reports to meet diverse educational needs.
• The East Carolina Chapter of the Society for Neuroscience (ECCSFN) holds an annual meeting that serves as an outstanding forum for presenting case reports, providing deadlines for generation of an abstract and poster and an opportunity for students and residents to present and discuss their work.
• Case reports generated for the ECCSFN can then be redirected to other forums, including local presentations as grand rounds and other sessions and to national meetings with the ultimate goal of publication in a peer-reviewed journal.
• This process, now in place in the Department of Pathology and Laboratory Medicine at the Brody School of Medicine, allows students to multipurpose interesting cases to:
  • Develop research and teaching skill sets.
  • Provide content for their curriculum vitae as research, presentation, publication, and curriculum entries as they approach residency application.
  • Promote medical student scholarship in a constructive and accessible fashion at institutional, local, and national levels through this pipeline.
• Transitioning work from presentations to manuscripts is challenging, with multiple manuscripts in preparation and two submitted to date.
• The presence of an annual, local neuroscience meeting, an evolving medical student curriculum, and academic journal focused on educational cases allow for and facilitate the targeting of specific medical student projects toward high-yield outcomes.

REFERENCES

5. PATHWAYS MURTO, P., PRECHT, K., PRYK, P., MURTO, M., PRYK, P., MURTO, M., PRYK, P., MURTO, M., PRYK, P., MURTO, M., PRYK, P.