In the spring of 2001, the Organization of Resident Representatives (ORR) undertook a discussion of the appropriate role and balance of the medical industry and its representatives in the educational setting. This discussion was driven by a growing body of research suggesting that resident physicians are not properly educated about the influence direct and indirect marketing has on prescribing and professional behavior. Fully recognizing that the medical industry and health care delivery are intrinsically linked, the ORR has examined the role between industry and resident physicians, identifying areas that need to be explicitly addressed within the GME curriculum, so that residents enter practice fully educated on the benefits and biases inherent in product promotion and research. The follow-up phase of this project will include the development of web-based learning materials around the issues addressed below.

Introduction

Advances in medicine are dependent on innovation. Currently, a broad range of health professionals, including physicians and academic and private sector scientists, share in this process of discovery. However, it is often through the medical industry that resident physicians learn about recent innovations, and this is through the form of brief, informal presentations by product representatives, commonly referred to as “detailing.” Detailing can occur in a variety of settings, ranging from visits to a clinical practice site, professional seminars, promotional speakers/dinner events, or social gatherings. Several factors limit the utility of these types of informal product presentations. According to the preponderance of the literature, they are biased, lack a focus on evidence-based information, and may contain factual inaccuracies. Additionally, promotional materials and small-value gifts are conferred upon participants. These gifts can be of educational and/or clinical relevance (e.g. office supplies, medical texts, etc), but more substantial offerings, such as funding for CME activities, travel, research and grants, are not uncommon. At core, the promotional gifts distract from the objective scientific content, and add the burden of reviewing the gift for any conflict of interest or appearance of impropriety. As a consequence of commingling promotions and marketing in an educational setting, unintended actions can follow, including improper prescribing, selective product recall, and other practices that are not necessarily in the patient’s best interest. Unfortunately, residents are not sufficiently cautioned about the potential influence of marketing on subsequent behavior, and many incorrectly believe that they are immune to the advertising and gifting elements of detailing. Therefore, there is a need to recognize the unique needs of the resident physician, and the inherent limitations of the current system of their interactions with the medical industry.

* For the purposes of this discussion, medical industry includes representatives from pharmaceutical companies and makers of medical devices and equipment.
Why Resident Physicians?
The undergraduate medical education system provides graduates with a solid understanding of the various aspects of medicine, and the GME system is charged with the goal of teaching its practical application. The AAMC has defined five domains of knowledge for the GME curriculum, and the ACGME has endorsed six general competencies for residents.\textsuperscript{14-16} Two of the AAMC domains, scholarly medical practice and the health care system, and two of the ACGME competencies, practice-based learning and improvement and professionalism, similarly identify the need to teach residents to apply the methods of Evidence-Based Medicine to the analysis of medical literature, and to understand the ethical issues and potential conflicts of interest inherent in business relationships. The current methods of resident physician and medical industry interactions are not in keeping with the above stated knowledge domains and competencies for residents. Resident physicians need a structured educational interaction, consisting of an evidence-based disclosure of product information, including mechanism/mode of action, indications, contraindications, adverse effects, and therapeutic benefits, as well as disclosure on the part of attending physicians making presentations about a product or medication of any fiduciary relationship they might have with the company producing the product/medication.

Recommendations
Clearly needed is a cooperative approach between resident physicians, their sponsoring institutions and educators, and the medical industry to acknowledge and preserve the educational mission of GME. Unstructured product promotion in the GME setting can lead to information asymmetry, and biases which have long standing implications on the resident’s future practice. The following principles should be used to guide resident interactions with the medical industry.

- Residents should be made aware of the limitations of the current methods of medical industry promotions and the potential conflicts of interests that can result from the gifting process.\textsuperscript{5,17-18}

- Residents should look to their specialty societies, sponsoring institutions, and educators for guidelines on industry interactions.

- Each institution should develop explicit guidelines on the amount and type of direct interaction industry representatives may have with residents, and make those guidelines clear to residents, as well as industry representatives.\textsuperscript{19}

- Recognizing that residents will encounter medical industry personnel and literature throughout their careers, teaching about the interplay between physicians and industry should be part of the formal GME curriculum, to include information on potential conflicts of interest and the influence of marketing.

- Residents and GME directors should work with medical industry representatives to formulate evidence-based product presentations with structured faculty participation, and minimize or eliminate gifts and promotional items that can lead to conflicts of interest or the appearance of impropriety.\textsuperscript{19-20}
Conclusion

Currently, few tools exist to assist residents in developing the necessary skills for effective *interpretation* of promotional product information, and a sensitized *awareness* of the influence of marketing techniques. All members of the GME community must work together to ensure that the educational mission of GME is not compromised, and that resident physicians are fully aware of the marketing premises and potential conflicts of interest associated with medical industry interaction. This will result in critical tools necessary to guide them throughout their careers.


