Terri Grodzicker: 35 years of shaping scientific publishing and communication

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The rapid advances in the research of gene regulation and development in the 1980s, sparked by the cloning of key regulatory genes and functional analysis of cell type-specific gene expression, set the ground for establishing new journals for publishing. Discussions between the late Steve Prentis, Director of Publications at Cold Spring Harbor Laboratory, and Richard Flavell, then Senior Secretary of the Genetics Society of Great Britain, led to the launching of *Genes & Development* as a journal with offices in the U.S. and Europe. The recruitment of Terri Grodzicker as a full-time Editor enabled the fast and continuous success of *G&D*. Terri was an ideal choice because she had been running a successful lab and had shown excellent scientific judgement and broad knowledge. In addition, the association of the new journal with CSHL, as a site of prestigious research conferences, facilitated the success of this new journal, which ended up publishing some our best work.

When I set up my own lab in the late 1980s and attended some CSHL conferences, I met Terri and was impressed by her passion for science and grasp of important experiments. After postdoctoral work in David Baltimore's lab, I first sought to understand the basis for the cell type-specific expression of the immunoglobulin μ gene in transgenic mouse models. Having shown that the cell type-specific intragenic enhancer is instrumental for B-cell-specific μ gene expression in mice, we wanted to determine whether enhancers, known to be associated with transcriptional activation, can confer chromatin accessibility independent of the interaction with a RNA Pol II promoter. To this end, we introduced a gene construct—consisting of a small μ enhancer core fragment linked to a bacteriophage promoter—into the mouse germline. Subsequently, we assessed the accessibility of the prokaryotic promoter in transgenic pro-B cells and found that the μ enhancer core conferred accessibility independent of detectable PoI II transcription (Jenuwein et al. 1993). We submitted a paper describing these findings to *G&D* and, in the reviews and interactions with Terri, received helpful feedback about the interpretation and limitations of the experiments.

The transition to an independent researcher and junior principal investigator is a challenging and daunting career step. In this phase, the peer reviewers and the Editor can provide a useful and important gauge for the quality and scope of someone's work and serve as surrogate mentors. In this context, the Editors play a crucial intermediary role. Terri has shown an exceptional talent in handling and assessing papers, whereby she was firm with reasonable requests by reviewers that strengthened the paper but also recognized unreasonable requests that would involve years of additional work. Moreover, it was clear that Terri read the papers and instead of simply passing on the reviews, she added occasionally her own comments that extended the reviews. It was also interesting to see how Terri assembled the Editorial Board of *G&D*. In addition to the inclusion of well-established senior scientists, whom she knew personally from conferences, she continuously invited junior researchers who had shown fair and expert judgment as reviewers and whose work had been recognized by other reviewers for its impact and quality. Thereby, Terri empowered the career of junior principal investigators and helped them in their transition to become established members of the scientific community. When Terri invited me to join the board in 1992, it felt like I finally received a stamp of approval for my science.

In another line of our research efforts, we aimed to identify and clone lymphocyte-specific transcriptional regulators by subtractive cDNA cloning or protein purification. *G&D* published the cDNA cloning of LEF1/TCF1α as a T-cell receptor (TCR)-binding protein by my lab and that of Kathy Jones, as well as our subsequent characterization of LEF1 as DNA-bending protein that facilitates the formation of a higher-order TCR enhancer protein complex. When we submitted the cloning and initial analysis of

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murine LEF1, we were not aware of the parallel cloning efforts of the human ortholog TCF1α. That paper had been submitted 5 weeks earlier and was accepted just before our submission. Nevertheless, Terri sent our paper out for review and, after acceptance, informed me of the existence of the other paper. Terri kept the entire process very transparent and, without manipulating the outcome, published both papers in two sequential issues. This fair way of handling competing manuscripts, submitted within a short time frame, differed from that of many other journals.

Terri encouraged submission of follow-up studies but did not hesitate to reject papers that did not fulfill the high standard of *G&D*. In an analysis of LEF1 deficiency in mice, we uncovered an essential role for LEF-1 in the development of several organs and structures that require inductive tissue interactions (van Genderen et al. 1994). This paper received more than 1000 citations. Thereafter, LEF1 was shown by Walter Birchmeier in collaboration with our lab to bind β-catenin and act as a nuclear effector of Wnt signaling. The late Ira Herskowitz used to say that the impact of someone's research should be judged not only by the number of publications in top journals and but also by the ability to follow up initial findings with further in-depth analysis. *G&D* has been one of the few high-ranking journals that kept up with this premise. After publishing the papers about cDNA cloning and characterizing the B-cell-specific transcription factor EBF1, *G&D* also published the study regarding the structure of DNA-bound EBF1, which revealed not only structural similarity to Rel and NFAT transcription factors but also a unique mode of DNA recognition (Treiber et al. 2010). We also found that EBF1 functions as a pioneering transcription factor that binds DNA prior to the detection of chromatin accessibility and gene expression (Li et al. 2018).

The European office of *G&D* was intended as a way to reach out to European science. In contrast to the U.S. office, however, the European office was run by academic Editors who were still keeping their labs. As European Editors, Graham Bulfield was followed by Nick Hastie at the MRC Human Genetics Unit in Edinburgh and Davor Solter at the Max Planck Institute of Immunobiology in Freiburg. In 1999, I had moved my lab from UCSF to the Gene Center, and when Davor stepped down as Editor, Terri asked me whether I was interested and willing to assume the European Editorship. This was an interesting task, and in the 3 years of Editorship (2003–2005), I interacted with Terri at a new level and learned to appreciate even more her unique qualities as an Editor. Terri knew how important it is to choose reviewers based not only on their expertise but also on their fair assessments and judgments. Terri also emphasized the importance of reading the paper herself, and she recognized when a reviewer was overburdened and forwarded the paper to an inexperienced postdoc. During my tenure as European Editor, Terri and I had ample discussions about science and how the journal should adapt to new research directions and upcoming experimental advances. Throughout all these years, Terri managed to keep *G&D* at the forefront of scientific publishing without jeopardizing its unique identity. Occasionally, our discussion diverted to other topics, and I learned about Terri's additional passion for the opera. Like for science, Terri made interesting and sometimes humorous comments about the performances and sets.

In addition to her role as Editor, Terri had a keen interest in scientific communication. Terri was deeply involved in co-organizing the CSHL Symposia and conferences together with Bruce Stillman and David Stewart. For me, the CSHL conferences were the best avenues of scientific communication. Terri was always open to suggestions for new conferences, and given the lack of conferences with a focus on molecular analysis of gene expression and signaling in the immune system, Steve Smale and I proposed a new conference on this topic. As expected, Terri wanted to ensure a high quality, and we had to outline in detail how we envisioned the conference, which developed into a very successful meeting avenue.

Terri played such an important role in shaping the scientific publishing landscape that it is difficult to envision the future of *G&D* without her. However, I am confident that the members of the Editorial Board will continue to help supporting this terrific journal. I am very grateful for the role Terri played in my own scientific career, and I look forward to seeing where her passion for science and opera will lead her after stepping down from *G&D*.

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