Editorial

Celebrating 50 Years of *Biological Psychiatry*: To the Future, and Beyond

John H. Krystal

Since *Biological Psychiatry* first published in 1969, our sense of mission and our enthusiasm for the science that we publish have never been greater. Now in our 50th year, it is fitting to celebrate the emergence of *Biological Psychiatry* as a vehicle for accelerating the transformation of translational neuroscience and the treatment of neuropsychiatric disorders. These disorders have emerged as the most disabling medical conditions worldwide and, with rising suicide rates, are also among the most lethal. The magnitude of the challenge of alleviating the burden of these disorders remains beyond our comprehension, as the complexity of the brain far exceeds our grasp. Nonetheless, over the past half-century, we have had a growing impression that advances in neuroscience are at long last reaching the point where breakthroughs are imminent.

The impact of the >12,000 papers published in the *Journal* over the past 50 years is remarkable. *Biological Psychiatry* is the most highly cited journal in the field of psychiatry and among the most highly cited in neuroscience, according to 2018 metrics. The Impact Factor for papers published in *Biological Psychiatry* has grown steadily and is now 11.98 (1). The *Journal* has begun to have a broader impact on society, with research findings cited frequently in the popular media, including representation on the cover of *Time* magazine, reference in newspapers and television news shows, and even inclusion in television dramas. From this we must conclude that *Biological Psychiatry*, like other leading journals, is changing not only science but also the way that neuropsychiatric disorders are viewed in society. This societal agenda is critically important to reduce the stigma associated with mental illness; to encourage governmental and third-party payer support for prevention, treatment, and research; and to foster the development of a generation of informed consumers and advocates. The buzz generated about the breakthroughs in neuroscience also draws young people into the field. This broader impact is no accident. In conjunction with our publisher, Elsevier, the *Journal* regularly issues press releases, and we trumpet the science that we publish on Facebook, Twitter, and via other channels of the Society of Biological Psychiatry. Further, we have created several educational initiatives that are designed to attract the attention of the broader community rather than solely to update the cognoscenti. In this way, we hope that the product of *Biological Psychiatry* is true impact, rather than an impact score.

The breadth and quality of the conceptual and technical innovation of papers published in the *Journal* is impressive. Inspection of the 10 most highly cited papers published in the *Journal* (Table 1) highlights this fact, as they are a microcosm of the papers that we have published (2–11). Casual inspection reveals that these papers come from both basic and clinical neuroscience. They present new assessments and new treatments, and use a vast array of methods, including epidemiology, genetics, and molecular, cellular, systems, and cognitive neuroscience. Their findings have implications for many clinical conditions. In sum, the papers published in *Biological Psychiatry* reflect and, we hope, broadly fuel innovation in translational neuroscience and therapeutics.

The *Journal* cherishes its legacy of leadership. The founding editor, Dr. Joseph Wortis, was an iconoclast. He declined admission to Yale Medical School to travel to and train in Europe. He studied with Drs. Havelock Ellis and Adolf Meyer and he was analyzed by Dr. Sigmund Freud. In a 1994 interview with the late Dr. Leo Hollister, Dr. Wortis noted that one of his review papers included the first reference to the antipsychotic effects of chlorpromazine in the English language. He was also a pioneer of convulsive therapy.

Dr. Wortis led the creation of the *Journal* in 1969, the same year that Americans first landed on the moon. In the ensuing 50 years, one could argue that neuroscience, like space exploration, has progressed to the point where it taxes the limits of the human capacity to understand our universe. Alternatively, one could argue that just as manned spaceflight has not progressed beyond the moon in the past 50 years, neuroscience has failed to generate cures; that is, there is plenty left to do.

Dr. Wortis' 24 years of editorial service were marked by qualities that we value today. First and foremost, he loved the science that he edited. He also brought the critical eye of a skeptic to papers that were submitted. In addition, in his capacity as editor, he nurtured both the science and the scientists. The handwritten notes from Dr. Wortis to authors reflected his personal touch. Dr. Wortis was followed by Dr. Wagner Bridger (1992–1997) and Dr. Richard Josiassen (1997). In 1998, Dr. Dennis Charney, then of Yale University, assumed the editorship of the *Journal* and recruited deputy editors Drs. Robert Innis and Eric Nestler. Dr. Charney's leadership represented a key transition point for the *Journal* as he increased the rigor, visibility, and impact of the science published. The rate of submissions also increased substantially. By the end of Dr. Charney's term in 2006, *Biological Psychiatry* was designated one of the "hottest journals of the millennium" by *ScienceWatch* (12).

I am extremely proud of what the current editorial team has accomplished since 2006. We moved from paper to electronic submissions. We changed the look of the cover and the presentation format for papers. We introduced numerous features to make the science more accessible to readers, publishing

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Table 1. The 10 Most Highly Cited Papers Published in *Biological Psychiatry*, According to Scopus (as of August 6, 2018)

Authors and Year of Publication	Article Title	No. of Citations
Hudson *et al.*, 2007 (2)	The Prevalence and Correlates of Eating Disorders in the National Comorbidity Survey Replication	2132
Duman and Monteggia, 2006 (3)	A Neurotrophic Model for Stress-Related Mood Disorders	1894
Alexopoulos *et al.*, 1988 (4)	Cornell Scale for Depression in Dementia	1709
Dowlati *et al.*, 2010 (5)	A Meta-Analysis of Cytokines in Major Depression	1609
Heim and Nemeroff, 2001 (6)	The Role of Childhood Trauma in the Neurobiology of Mood and Anxiety Disorders: Preclinical and Clinical Studies	1601
Willcutt *et al.*, 2005 (7)	Validity of the Executive Function Theory of Attention-Deficit/Hyperactivity Disorder: A Meta-Analytic Review	1579
Miller *et al.*, 2009 (8)	Inflammation and Its Discontents: The Role of Cytokines in the Pathophysiology of Major Depression	1518
Berman *et al.*, 2000 (9)	Antidepressant Effects of Ketamine in Depressed Patients	1466
Rush *et al.*, 2003 (10)	The 16-item Quick Inventory of Depressive Symptomatology (QIDS), Clinician Rating (QIDS-C), and Self-Report (QIDS-SR): A Psychometric Evaluation in Patients With Chronic Major Depression	1449
Faraone *et al.*, 2005 (11)	Molecular Genetics of Attention-Deficit/Hyperactivity Disorder	1396

brief summaries of each paper at the beginning of every issue, critical commentaries that highlight papers in each issue, and, more recently, educational commentaries that provide clinically focused, nontechnical introductions to important neuroscience topics. We have embraced technological advancements, including publishing a digital edition that can be read in multiple languages, making our content available in apps, and allowing readers to visualize 3D neuroimaging data, to name only a few. We have repeatedly revised our instructions to authors to reflect our ongoing commitment to make the research published in the *Journal* more ethical, more replicable, more transparent, more rigorous, and more accessible. Our most ambitious initiative has been the creation of a new journal, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging,* under the leadership of Dr. Cameron Carter. Thanks to Dr. Carter's vision and steady leadership and the extraordinary effectiveness of our editorial office staff, this spin-off journal has been remarkably successful.

The task of managing *Biological Psychiatry* has grown. Authors can no longer count on a detailed handwritten letter from the editor on each paper. Nonetheless, at least two editors review most submissions. We also respond to all inquiries. As editor, I am reminded frequently by my colleagues that a journal like *Biological Psychiatry*, which accepts only about 6% of submissions, deals out more disappointment than satisfaction. Despite this, we strive to make the submission process a useful experience for authors, and our office works extremely hard to make the submission and review processes easy, transparent, and responsive. In this regard, we are reminded of the 2012 report in *Science* (13), which found that papers initially rejected and published elsewhere often have higher citation impact than papers accepted on their initial submission.

Biological Psychiatry also strives to encompass the growing diversity of our field. Dr. Wortis joined the Society of Biological Psychiatry shortly after it formed. At that time, he noted, "there were maybe 20 members and we would sit around an annual dinner" (Dr. Hollister's interview of Dr. Wortis, San Juan, Puerto Rico, December, 1994). The Society of Biological Psychiatry has grown from a parochial society with American membership to a mature organization with a global, diverse membership. Accordingly, we now have two international editors and three female editors. We look forward to further increasing the presence of groups underrepresented in science and medicine on our Editorial Board. These global trends are reflected in our submissions as well; the *Journal* has received submissions from more than 80 countries since moving to our digital submission platform in 2006.

The Society of Biological Psychiatry also has made the nurturing of young scientists central to its mission. In collaboration with the Society's Education Committee, we created the Early Career Investigator Commentary. For each issue, a senior leader in a particular field is invited to identify and then mentor a promising early career scientist who is given the opportunity to prepare, as sole author, a commentary on a paper in that issue.

What will the next 50 years hold for *Biological Psychiatry?* Fifty years ago, aspects of the future were foretold by television shows including *The Jetsons* and *Star Trek*. The characterizations in those shows indicate that we cannot predict the future with precision. Nonetheless, in editing, as in science, the joy of the work is in the process. It is precisely because the enormous frustrations, challenges, and uncertainties of science are matched by absolute wonder at the function and dysfunction of the brain that neuroscience is, overall, rewarding. In this regard, I am reminded of President Kennedy's inspiring speech announcing the commitment to land a human on the moon: "We choose to [do these things] and do the other things not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win." Similarly, if *Biological Psychiatry* still exists in 50 years, it will be because the *Journal* has changed fundamentally, not because it stuck to formulae developed over the previous half-century.

One of the great joys of editing and science is the opportunity for collaboration. In this regard, over the past 12 years as editor, I have been extremely fortunate. I am extraordinarily grateful to my fellow editors and our remarkable office staff. I deeply appreciate the support that the

Journal has received from the leadership of the Society of Biological Psychiatry, our partners at Elsevier, the Society's Editorial Committee, our Editorial Board members, the broad community of reviewers, and first and foremost the authors who submit papers to the *Journal*. In accelerating the alleviation of the burden of neuropsychiatric disorders, we have a critically important job to do. Let's get on with our mission. May *Biological Psychiatry* thrive for the next 50 years, and beyond!

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References

1. Journal Citation Reports; Clarivate Analytics, 2018.
2. Hudson JI, Hiripi E, Pope HG Jr, Kessler RC (2007): The prevalence and correlates of eating disorders in the national comorbidity survey replication. Biol Psychiatry 61:348–358.
3. Duman RS, Monteggia LM (2006): A neurotrophic model for stress-related mood disorders. Biol Psychiatry 59:1116–1127.
4. Alexopoulos GS, Abrams RC, Young RC, Shamoian CA (1988): Cornell scale for depression in dementia. Biol Psychiatry 23:271–284.
5. Dowlati Y, Herrmann N, Swardfager W, Liu H, Sham L, Reim EK, Lanctôt KL (2010): A meta-analysis of cytokines in major depression. Biol Psychiatry 67:446–457.
6. Heim C, Nemeroff CB (2001): The role of childhood trauma in the neurobiology of mood and anxiety disorders: Preclinical and clinical studies. Biol Psychiatry 49:1023–1039.
7. Willcutt EG, Doyle AE, Nigg JT, Faraone SV, Pennington BF (2005): Validity of the executive function theory of attention-deficit/hyperactivity disorder: A meta-analytic review. Biol Psychiatry 57:1336–1346.
8. Miller AH, Maletic V, Raison CL (2009): Inflammation and its discontents: The role of cytokines in the pathophysiology of major depression. Biol Psychiatry 65:732–741.
9. Berman RM, Cappiello A, Anand A, Oren DA, Heninger GR, Charney DS, Krystal JH (2000): Antidepressant effects of ketamine in depressed patients. Biol Psychiatry 47:351–354.
10. Rush AJ, Trivedi MH, Ibrahim HM, Carmody TJ, Arnow B, Klein DN, *et al.* (2003): The 16-item quick inventory of depressive symptomatology (QIDS), clinician rating (QIDS-C), and self-report (QIDS-SR): A psychometric evaluation in patients with chronic major depression. Biol Psychiatry 54:573–583.
11. Faraone SV, Perlis RH, Doyle AE, Smoller JW, Goralnick JJ, Holmgren MA, Sklar P (2005): Molecular genetics of attention-deficit/hyperactivity disorder. Biol Psychiatry 57:1313–1323.
12. Hottest journals of the millennium (so far). ScienceWatch (Jan/Feb 2005).
13. Calcagno V, Demoinet E, Gollner K, Guidi L, Ruths D, de Mazancourt C (2012): Flows of research manuscripts among scientific journals reveal hidden submission patterns. Science 338:1065–1069.