

Morphology: Bodies, Genes, Journals

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This issue of the Croatian Medical Journal (CMJ) is devoted to the study of morphology, in honor of late Prof. Jelena Krmpotić Nemanić, one of the last classical anatomists in Europe (1). The articles published here address morphology in a general sense, from the morphology of the bodies, which was the core of medical science in the past, to the morphology of genes, which represents the future of science. Although research in gross anatomy still makes significant contribution to medicine and improvement of health care (2-5), anatomy has moved from the scientific empire of the past centuries to a marginal and unattractive scientific discipline and a curriculum course with decreasing number of class hours (6). The decline of anatomy as a scientific discipline and a constant reduction of the anatomy course in a growing medical curriculum is in sharp contrast with the development of imaging technology and surgical procedures which require very detailed knowledge of gross morphology of the human body (6). With such a misbalance, it is not easy to teach anatomy to first-year medical students, especially as there is little evidence on best teaching methodologies (7). Four articles in this CMJ issue address education in anatomy: the relation of the structure of anatomy course to the body of anatomical terminology and textbooks (Grković et al, page 49), use of daily quizzes in anatomy course to monitor students' knowledge and predict exam success (Poljičanin et al, page 55), students' academic success related to the delivery of anatomy as a traditional, spread-out course or a block course (Salopek et al, page 61), and impact of team-based learning on educational outcomes of the first year medical students (Wiener et al, page 69). We hope that these articles will contribute to the effective anatomy teaching in a modern curriculum but also serve as a reminder for the medical profession to appreciate the knowledge of anatomy in modern medical practice.

Enormous technological development in biomedical sciences ushered in morphology research of the future – the morphology of the genes and its products. This issue's Editorial (page 4) describes how a number of Croatian researchers from different biomedical fields gathered around an exciting collaborative project to investigate the structures underlying complex phenotypes of human diseases,

from genomic sequence to circulating metabolites in the body, quantitative biological traits of relevance to human health and disease, and human diseases of complex etiology. The basis of the project is the "10,001 Dalmatians" – a study of genetic and environmental determinants of health and disease in genetically isolated island populations from Dalmatia, Croatia, and a continuation of "1001 Dalmatians" research program investigating health effects of human population isolation, inbreeding, admixture, and outbreeding (8). There are 3 articles in this issue describing the first results from the genome-wide association study performed on the island of Korčula in Croatia, focusing on genetic variants underlying height, weight, and body mass index (page 7), high myopia (page 17), and biochemical traits (page 23). The same research group presents historical and genetic evidence that highly lethal 15th century epidemics increased population frequencies of CCR5Δ32 mutation, conferring resistance to HIV infection, in Croatian island isolates (page 34). The research group of Pivac et al describe ethnic differences in the polymorphism of brain-derived neurotrophic factor in Croatian and Korean healthy subjects (page 43).

Because several members of the editorial staff or management of the *CMJ* and I, as one of the editors-in-chief, are authors of original scientific articles in this issue, it is important to remind the readers about the *CMJ*'s policy on handling submissions from the editorial team, outlined in the *Guidelines for Authors* (page 93). The *CMJ* recognizes that editors and other colleagues related to the journal are active researchers and that they may occasionally want to submit an original research article if it falls into the thematic scope of the journal; however, this may be perceived as a potential conflict of interest and lead to the abuse of editorial position (9). To address any conflict of interest, whether actual or perceived, in decision-making about submission from the *CMJ* editors, the *CMJ* closely follows the guidelines for good editorial practice set for this issue by international editorial organizations, as explained in the *Guidelines for Authors*.

The *CMJ* also continues with its policy of giving equal publishing chance to manuscripts from different au-

thors, research fields, and scientific communities. Because the journal can publish only a fraction of submitted papers, we do not want to become the publication venue for a small number of researchers and have thus introduced the policy of normally publishing no more than 2 research papers by the same author or coauthor in a journal volume. Theme issues are sometimes a necessary departure from this policy because a large group of researchers, such as the one gathered around genome-wide association studies on Croatian islands, may submit a series of related articles. Such cases outweigh the strict implementation of the policy on the annual number of published items from an individual author. I hope that this editorial contributes to maintaining the transparency of the editorial decision-making process and shows the adherence of the *CMJ* to the international publication standards.

This *CMJ* issue features not only a number of articles on the morphology of the human body and its genes, but also the new design of the journal, both in the printed and online edition. After its first 15 years, *CMJ* continues with its mission to be the window into the research of small and emerging scientific communities and the door for health research from developing countries to the mainstream science. The change in the design signifies the journal's growth, dedication to excellence in research and editorial work, and openness to change. The design of the first *CMJ* issue (Figure 1) was the work of Joško Marušić, animated filmmaker and cartoonist, and his colleague Goce Vaskov, also animated filmmaker. The first journal issue was published in 1992, but even before the launch of the first issue we published its war supplement, to document the medical aspects of the war in Croatia that started in 1991 (Figure 1).

The beginning of the new millennium and increase in journal's visibility with the inclusion in major bibliographical databases brought a stimulus for change; Marko Gašpić, *CMJ*'s Production Editor, together with *CMJ*'s new publisher, *Medicinska naklada*, and Andrea Knapić, designer from Zagreb, made a new cover design (Figure 2). The new design was recognized by the international publishing community, winning the Association of Learned and Professional Society Publishers (ALPSP)/Charlesworth Highly Commended Award for Learned Journals in 2002 (Figure 2).

With the burden of the success of previous journal designs, we decided on a professional approach to answer the challenge of the current design change. Instead

Figure 1.



Cover of the first issue of the Croatian Medical Journal in 1992 (left) and its first war supplement (right), published in 1991 to document the medical aspect of war in Croatia.

Figure 2.



The new design of the Croatian Medical Journal in 2001. The design won the Highly Commended award of the Association of Learned and Professional Society Publishers (ALPSP)/Charlesworth Award for Learned Journals in 2002.

of going to friends and colleagues as before, in February 2008, we opened a public call for the change of the visual identity of both the printed and the electronic journal edition. In April, we received 5 proposals, which were evaluated by the *CMJ*'s review committee: Damir Sapunar, chair, editor of the electronic *CMJ*; Ana and Matko Marušić, the *CMJ* editors-in-chief; Joško Marušić, Academy of Fine Arts, Zagreb University; and Vjekoslav Ivanišević, architect, ARC Split. After a long and, at times, very lively discussion, we chose the proposal coded 3Y4M, by Maša Vukmanović and Ana Banić from the OFFstudio in Zagreb – which is the design you can see and read today in print or on line.

Some may notice (and perhaps complain) that we departed from the Croatian red, white, and blue tricolor – this is because we aimed to find a really novel and exciting format for a scholarly journal turned to the future of science, a format which is removed from the traditional symbols of medicine but simple and clear at the same time. The new *CMJ* logo represents the journal's acronym, where the letter "J" is subtly morphed into a stylized chromosome, emphasizing that the *CMJ* regularly publishes research from the field of DNA phenotyping and molecular medicine. "J" is also shaped as quotation mark, linking the journal with publishing and printing profession. Finally, the two parts of the letter "J" divided by a narrow line are reminiscent of a surgical incision. We also liked the idea of shaping the right margin of the journal into letter J, which is unique and visually distinguishes the printed edition of the *CMJ* from other journals.

With the authors of the new design, we also collaborated on the production of this year's first cover page. Again, discussions among the editorial staff were lively and exigent, but we chose a solution that best pays tribute to the issue's topic – morphology. The design is reminiscent of the spots pattern on a Dalmatian dog, but the pixel deconstruction of the spots symbolizes the microscopical structure of the object and its computer analysis, as in genome-wide association studies from the "10001 Dalmatians" study.

You will like or hate the new look of the *CMJ* – whichever your choice is, we hope that it challenges you to think about, research, and discuss science and health. We wait

for your comments, thoughts, and suggestions for the future of the *CMJ*.

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