

# AAI LOOKS BACK

1916

100 years of *The JI*

2016

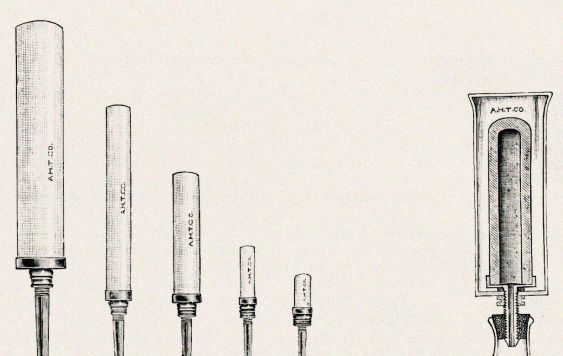
## Words & Pictures

### Advertising in The Journal of Immunology: The First 50 Years

Early editions of *The Journal of Immunology* (*The JI*) with their simple text-based covers paled in comparison with the visually impressive covers of the journal of today. The entire first volume in 1916 contained only a single use of photographic images—a series of five photographs showing kidney lesions resulting from chronic anaphylaxis.<sup>1</sup> All of this changed, of course, with the arrival of the first ads, which drew the reader from text to eye-catching, graphic elements meant to induce purchases. Looking back on decades of ads published in *The JI*, we see that they illustrate a fascinating history of the journal and the field: what advertisers thought would interest early scientists and how ads changed to address the needs of immunology's maturing, diversifying, and expanding discipline.

Ads in the first 50 years of *The JI* fall into four general categories according to their specific appeals or styles. The largest group of ads promoted the tools necessary to perform research, such as lab equipment, research animals, and reagents, with the drugs and other pharmaceutical products comprising a second category. A third type of ad publicized civic engagement campaigns that would be of interest to scientists. A fourth category emerged when journal advertisers began using modern graphic design and advertising techniques to strengthen their message. The following advertisements (Figures 1-4) are examples of each of these categories.

### MANDLER DIATOMACEOUS FILTERS FOR BACTERIOLOGICAL WORK



No. 27689. Mandler Diatomaceous Filter Cylinders with Metallic Headpieces

Cross section showing Mandler Diatomaceous Filter attached to glass mantle in correct position for filtering

Mandler Diatomaceous Filters are specially made for the filtering of serums, toxins and other sterile liquids of all sorts. The Infusorial Products Company, of Toledo, have been experimenting since 1914 toward the perfection of diatomaceous earth filters for bacteriological laboratory use in connection with their manufacture of filters for household and manufacturing purposes. With the assistance and cooperation of bacteriologists in the laboratories of several of the largest manufacturers of biological products, U. S. Government Departments, etc., a filtering mass has now been perfected which seems likely to surpass in quality that heretofore used for similar purposes.

The metal caps are of heavy brass nickel plated and provided with a new feature in the way of a special projection fitting inside the tube, which prevents the cap from working back and forth with a tendency to destroy the cement joint. The cementing of the cylinder to the metal cap is a distinct improvement over the method heretofore followed. With the exception of a new size, 8 x 1½ inches, the cylinders offered correspond exactly in size and may be used in the same fittings as the filters of foreign make heretofore widely used for similar purposes.

**27689. Filters, Mandler Diatomaceous, cylinders only, with metallic headpieces, with certificate of air pressure test.**

Size, inches.....	10x2	8x1½	8x1	5x1	2½x½	1½x½
Each, net.....	3.50	3.15	3.00	2.50	1.25	1.15

**27690. Filters, Mandler Diatomaceous, with glass mantle with circular opening in bottom as shown in illustration, but without flask or other container for filtering.**

Size of cylinder, inches.....	10x2	8x1½	8x1	5x1	2½x½	1½x½
Each, net.....	5.25	4.40	4.25	3.50	2.00	1.65

**27691. Glass Mantles only, for Mandler Diatomaceous Filters, such as are included with No. 27690.**

Size, inches.....	14x4	11x2½	5½x2½	4x1	2½x½
Each, net.....	1.75	1.25	1.00	.75	.50

**ARTHUR H. THOMAS COMPANY**  
IMPORTERS—DEALERS—EXPORTERS  
**LABORATORY APPARATUS AND REAGENTS**  
WEST WASHINGTON SQUARE PHILADELPHIA, U.S.A.

Figure 1: Mandler Diatomaceous Filters, 1919  
*The Journal of Immunology*

<sup>1</sup> T. Harris Boughton, "Kidney Lesions in Chronic Anaphylaxis," *The Journal of Immunology* 1, no. 1 (1916):105–18



## Tools for Immunology Research

Ads comprising the broadest of the four categories focused on tools of immunological research: equipment, literature (scientific and medical journals and books), research animals, and reagents. Perhaps the finest example in this category is the first advertisement ever to appear in *The JI*. The Arthur H. Thomas Company promoted its Mandler diatomaceous filters (Figure 1) in the first ad ever placed in the journal (December 1916<sup>2</sup>). It stands as an example of the instructive nature of early advertising for tools used in immunological research. The ad includes a detailed rendering and a technical description of the uses and composition of the filter, as well as pricing. More discursive than most ads today, the description of the filter was written at a college reading level as was appropriate for readers of *The JI*, most of whom were M.D.s in 1916. The advanced level of writing highlights the cooperation between bacteriologists in industry and the U.S. government in perfecting the filter.

The Mandler filter, itself a new product on the market in 1916, was novel also for being designed and built in the United States. At the time, many American manufacturers of laboratory equipment were copying European designs. American production of such equipment arose with the growth of laboratory research in the U.S. prior to the outbreak of the World War I. Arthur H. Thomas Company, founded in 1900 in Philadelphia, was an early supplier of domestic and European laboratory products to the American market. When, in 1914, the company redesigned its catalog with illustrations and detailed

THE JOURNAL OF IMMUNOLOGY 1

**Save the Tenth Child**

STATISTICAL data show that approximately 10% of all children having Diphtheria die. Early and adequate Antitoxin treatment would save these children. In meeting this grave responsibility are you sure that your little patients are receiving the best Antitoxin obtainable? Do you have a satisfying consciousness of having done for them all that can be done?

The use of Parke, Davis & Company's Antitoxin inspires just that sort of confidence. For a quarter of a century it has been recognized as the standard the world over. It is potent, pure, and concentrated.

Parke, Davis & Company's Antitoxin is produced in a laboratory possessing unsurpassed facilities. Excellence in achievement here dominates all other interests.

"DIPHtheria IMMUNIZATION." a reprint, sent on request. Write nearest branch: Detroit, New York, Chicago, Kansas City, Baltimore, New Orleans, St. Louis, Minneapolis, or Seattle.

**Parke, Davis & Company**

Figure 2: Save the Tenth Child, 1922  
*The Journal of Immunology*

<sup>2</sup> Research yielded no ads in *The JI* prior to volume 2, issue 1, in December 1916.



descriptions, such as seen in Figure 1, the catalog emerged as the “bible” of the U.S. laboratory research industry. Arthur H. Thomas Company was renamed Thomas Scientific in 1983 and continues to sell equipment and supplies to the scientific community today.

## Products of Immunology Research

Some of the largest U.S. pharmaceutical companies of their day advertised their products in *The JI*, including Parke-Davis & Company, H. K. Mulford Company, The Arlington Chemical Company, and Wyeth.<sup>3</sup> These and other companies promoted drugs and other pharmaceutical products.

Ads for these pharmaceutical products (for treating diseases and allergies) were present in almost every issue of *The JI* through World War II. These included treatments, antitoxins, and vaccines for maladies such as hay fever, poison ivy, pertussis, tuberculosis, scarlet fever, influenza, and diphtheria.

The “Save the Tenth Child” advertisement (Figure 2) is notable as one of the few that attempted to sell a pharmaceutical product to clinicians through a combination of fact and fear. The ad, which appeared only once in *The JI* (December 1922), called attention to diphtheria, still a deadly disease. In the previous year, there were 206,000 cases, with 15,520 deaths (7.5 percent mortality rate). Even with the availability of diphtheria antitoxins for over two decades and an easy and reliable diagnostic test for the disease (the Schick test), the mortality rate among children at the time was typically higher, up to 20 percent.

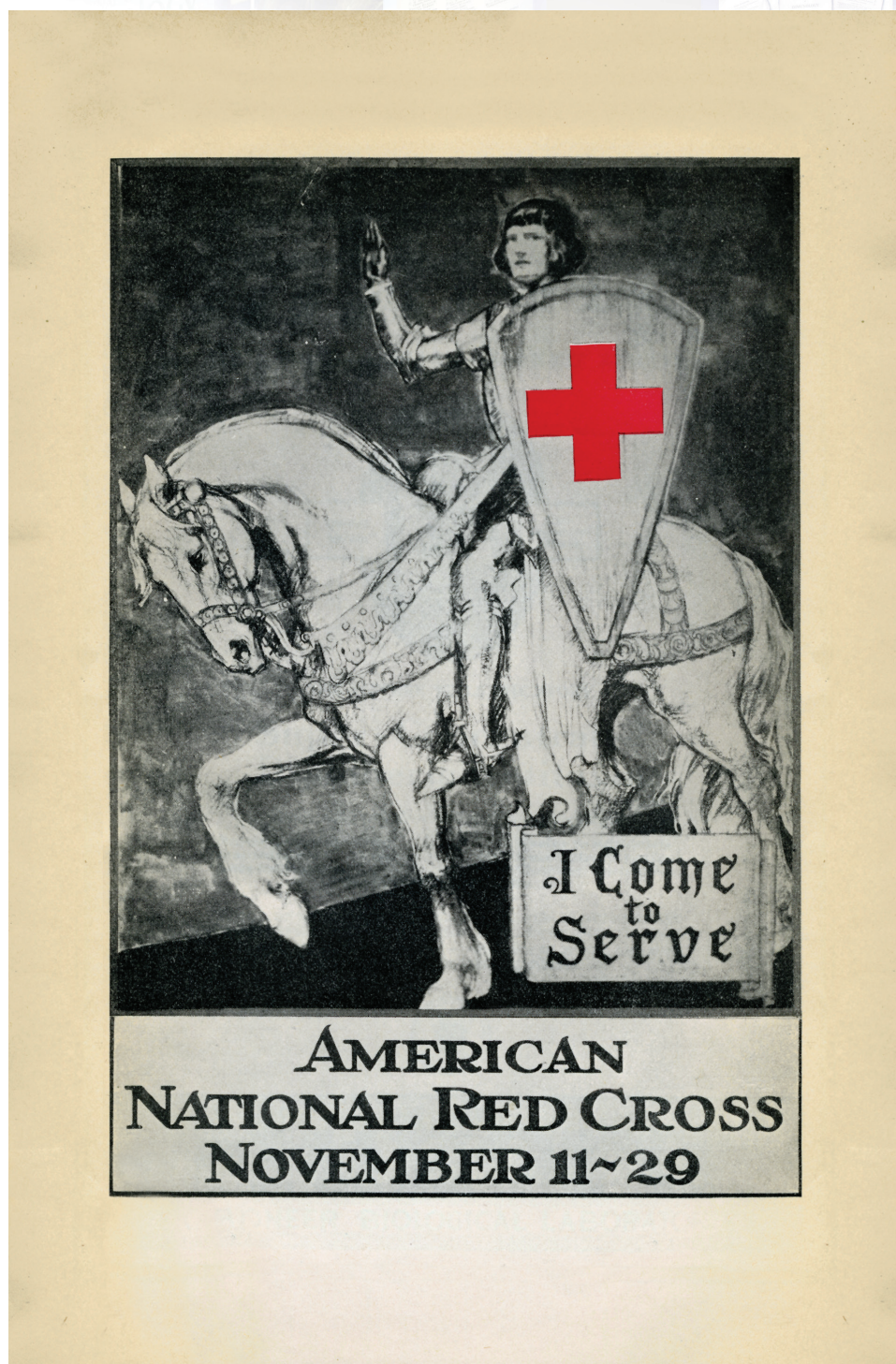


Figure 3: American National Red Cross Roll Call, 1923  
*The Journal of Immunology*

<sup>3</sup> Parke-Davis was acquired by Pfizer in 2000. Mulford merged with Sharp and Dohme in 1929 and later with Merck & Co. in 1953. The Arlington Chemical Company was acquired by the U.S. Vitamin and Pharmaceutical Corporation in 1951 and later bought by Revlon in 1966. Wyeth was acquired by Pfizer in 2009.



In 1890, Emil von Behring announced that he had created a successful diphtheria antitoxin. The following year, George Davis ("Davis" in Parke-Davis) recruited scientists from the University of Michigan, including E. M. Houghton (AAI '16). They set up a lab and developed the Parke-Davis antitoxin.<sup>4</sup> By the early 1920s there were many antitoxins commercially available for clinicians to select. In this case Parke-Davis appealed to the readers' sense of responsibility to their "little patients"—not only the responsibility to treat them effectively but also to use the "best Antitoxin available." Without mentioning the cases of deaths from antitoxin treatment, which were rare but newsworthy, the ad implies that the Parke-Davis antitoxin, produced "in a laboratory possessing unsurpassed facilities," would be safer than its competitors'. In the environment exemplified by the Pure Food and Drug Act of 1906, this appeal to purity and high scientific standards was particularly attractive.

### Civic Engagement Campaigns

Civic engagement campaigns appeared exclusively in the first three decades of the journal with ads promoting involvement in issues of public concern or public health crusades.

In November 1923, the first civic engagement campaign advertisement appeared in the final issue of the year. It would have been striking to any reader of the journal because of the first use of color ink in *The JI*. The ad (Figure 3) is for the seventh annual American National Red Cross Roll Call in 1923, which lasted

**124** products for tissue culture procedures

CULTURSTAT—sterile, lyophilized tissue culture media/sterile animal sera/sterile embryo extracts and serum/liquid and dry tissue culture media and reagents/cell cultures, primary and serially propagated/B-B-L media for pleuropneumonia-like organisms/FALCON tissue culture dishes, flasks, tubes/FALCON plastic pipet

**Aardvarks\* we don't have**

BUT VIRTUALLY ANYTHING ELSE YOU MIGHT NEED FOR TISSUE CULTURE PROCEDURES WE CAN SUPPLY. For example, horse, calf, fetal calf, rabbit, chicken, swine, human, and lamb are only some of the sterile animal sera available. One hundred and twenty-four different products in 323 different package forms are ready to meet your specific requirements.

CULTURSTAT—sterile, lyophilized tissue culture media—is ready to use in seconds, offers added convenience and saves time for the busy researcher.

Products of B-D Laboratories are available through your local distributor. Further information on request.

**B-D**  
B-D LABORATORIES INC., BALTIMORE, MARYLAND, U.S.A.

**B-B-L** Baltimore Biological Laboratory  
**Falcon** Falcon Plastics  
**Science Education Products**


In Canada: Becton, Dickinson, & Co., Canada, Ltd., Clarkson, Ontario  
Overseas: Becton, Dickinson & Co., S.A., P.O. Box 1173, Colon, Free Zone, Panama

B-D, B-B-L, CULTURSTAT, FALCON, AND SEPCO ARE TRADEMARKS. 06966

Figure 4: Aardvarks We Don't Have, 1955  
*The Journal of Immunology*

<sup>4</sup> Milton L. Hoeft, "The Early History of Parke-Davis and Company," *Bulletin of the History of Chemistry* 25, no. 1 (2000): 31–32.





from Armistice Day, November 11, to Thanksgiving, November 29. This annual fundraising drive recruited new volunteers and brought in a significant portion of the more than \$10 million the Red Cross spent each year.

This ad was rather unusual compared with most American Red Cross ads of the early 1920s. Ads at that time typically featured images of Red Cross nurses promoting the organization's non-militant activities, including public health nursing services in rural areas, disaster preparedness, and the Junior Red Cross. Although the First World War had ended five years before on November 11, 1918, the Red Cross of the early 1920s was an organization in transition. After receiving accolades during the war, it entered peacetime turmoil as the Red Cross faced plummeting membership, declining dues, a reorganization of the national office, and public critiques of wartime management and finances. Despite these challenges, the organization remained steadfast to its commitments, including the growing financial burden of being a primary provider of treatment and benefits for disabled veterans and their families.<sup>5</sup>

Although having no bearing on research, the appeal and accompanying artwork would have resonated deeply with members of the American Association of Immunologists (AAI) and readers of *The JI*.<sup>6</sup>

Following an AAI resolution in April 1917 offering the "services and facilities" of member laboratories to the "Federal and respective State governments" to satisfy the need for "bacteriologists and immunologists" for the war effort, a significant number of AAI members and *The JI* editors had become directly involved in the war.<sup>7</sup> Some volunteered in the U.S. Army Medical Corp and served in hospitals or on the front lines in Europe. Others who enlisted remained in the states conducting wartime research at their laboratories.<sup>8</sup> The wartime experiences of AAI members would have made them promising candidates for participation in the Roll Call.

## Modern Advertising

As the birth of modern advertising started to "animate the inanimate," using eye-catching color printing and photography, journal ads began appealing to the reader through visual creativity as well as a compelling "story."

Modern advertising came a little later to *The JI* than to commercial publications, but the 1950s brought contemporary design and advertising techniques to the advertisements published in the journal. The ads were no longer plainly factual. Text was simplified and abbreviated, and most ads featured new design and fonts, photography, color, trademarks, and/or slogans.

Becton, Dickinson and Company (BD) stood apart as one of the most innovative advertisers (Figure 4), especially in the use of color ads. BD had recently expanded beyond designing and manufacturing medical equipment with its acquisition of Baltimore Biological Laboratory in 1955. BD Laboratories quickly became a significant source of the reagents so important to immunological research and began promoting their products such as the one featured in the ad on the previous page.

This particular ad uses a contemporary approach in both design and copy to sell specialized biological research materials to scientists in the same way that consumer goods were sold to the public.<sup>9</sup> The whimsical language and design appealed to modern sensibilities, but the ad still informed the readers about what BD could offer. It focused on the wide variety of products: 124 products in 323 package forms, which reflect both the diversity of tools and expanding need of new reagents being used by researchers.

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<sup>5</sup> For a more detailed assessment of the American Red Cross from 1918 to 1923, see Foster Rhea Dulles, *The American Red Cross: A History* (New York: Harper & Brothers, 1950), 148–256; Patrick F. Gilbo, *The American Red Cross: The First Century* (New York: HarperCollins, 1981), 95–96.

<sup>6</sup> Dulles, *The American Red Cross*, 221.

<sup>7</sup> "Minutes of the Fourth Annual Meeting of the American Association of Immunologists," April 6–7, 1917, AAI Archive, Rockville, Maryland.

<sup>8</sup> Those who enlisted included AAI member Richard Weil, AAI president (1916–17), member of *The JI* board of editors (1916–1917), and author of the first article in the journal, who volunteered for the U.S. Army Medical Corp and died of complications from the 1917 influenza pandemic while stationed at Camp Wheeler, Georgia.

<sup>9</sup> Note the asterisk after the slogan refers to the crossed-out picture of an aardvark below. The image is labelled "This is an aardvark." Most casual references to the animal in newspapers at the time included a basic description.