

## The Primo Vascular System: New Research on a Half-Century-Old Idea

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**B**ACK IN 2012, when working on the Special “Issue on Basic Science” of *Medical Acupuncture*,<sup>1</sup> we received an article on the primo vascular system (PVS), discovered and described by Kim Bong-Han, MD, from 1962 to 1965. The article was very intriguing, but was eventually rejected by one of our reviewers and by me.

This was the first time I had encountered this subject. Many weeks later, I received a copy of the *Journal of Acupuncture and Meridian Studies*, which was a special edition devoted to “50 Years of Bonghan Theory and Primo Vascular System (PVS).”<sup>2</sup> After reading much of the research that had gone into this subject, I came to the conclusion that our readership should be made aware of not only the work from 1962 to 1965, but also the rediscovery of the PVS from 2002 to now. I would like to take this opportunity to share some of this research with our readers.

In the early 1960s, Dr. Bong-Han claimed to have discovered a novel circulatory system that can be found in vertebrates, invertebrates and plants.<sup>3</sup> This system is a web of vascular threadlike structures (*primo-vessels*) and in which a new fluid (*primo-fluid*) flows. This system is more primordial than the vascular and the lymphatic systems in the developmental sense and possibly in the evolutionary sense as well. The primo-fluid may regenerate damaged tissues and heal wounds. It is a transparent fluid with microcells that may perform cell therapy (like totipotent stem cells in Western medical terminology). Dr. Bong-Han did not, however, disclose his methods of observing this system, and no one could confirm his claims despite intensive attempts in China, Japan, and Russia.<sup>3</sup>

Starting in 2002, researchers at Seoul National University, in Seoul, Korea, have developed methods, using

modern technologies to rediscover most of the primo-vessels in various parts of an animal’s body and to investigate the morphological aspects of the primo-microcells.<sup>2,3</sup> The Bong-Han theory is a revolution. Indeed, it is an epoch-making shift of paradigm in medicine and health science.<sup>3</sup>

Here is what we have learned so far:<sup>3</sup>

- (1) The PVS is an independent functional morphological system. The superficial primo-vessels and extravascular primo-vessels are connected with superficial nodes. The deep primo-vessels are connected between them with intravascular primo-vessels, deep primo nodes (PNs), and organ nodes. The nodes store many cells, and thin vessels branch out from the nodes. Inside the vessels there are multiple subvessels.
- (2) PNs have many kind of nuclear acids, mainly DNA.
- (3) There is liquid circulating in the PVS. The flow is slower than blood flow and lymphatic flow.
- (4) The primo-fluid flow is in one direction following the blood flow circulation.
- (5) The liquid flow depends on the heartbeat and the pressures of blood and lymph.
- (6) The PVS has a unique bioelectric activity that is different from other various electric changes that have so far been created in the skin.
- (7) PVS fluid has DNA outside the cell nucleus.
- (8) There is much research relating PVS to the acupuncture system of meridians and acupuncture points.

There is a tremendous amount of information on PVS, certainly, much more than I realized. It would be interesting to have a review article on the subject, because a lot of the

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information appears to imply a resemblance of this system to meridians and acupuncture points in humans.

### REFERENCES

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