

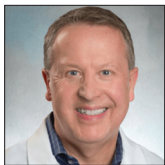


Book Review

CellBlockistry 101: The textbook of cell-blocking science

Edmund S. Cibas, MD

Department of Pathology (Cytopathology Division), Harvard Medical School and Boston's Brigham and Women's Hospital, Boston, MA, USA.



*Corresponding author:

Edmund S. Cibas, MD,
Professor, Department of
Pathology (Cytopathology
Division), Harvard Medical
School & Boston's Brigham
and Women's Hospital, Boston,
MA, USA.

ecibas@bwh.harvard.edu

Received : 28 August 2021
Accepted : 28 August 2021
Published : 20 September 2021

DOI

10.25259/Cytojournal_39_2021

Quick Response Code:



Anyone who cares about and deals with cytoprep issues should add **CellBlockistry 101: The Textbook of Cell-blocking Science** to their library.^[1-3] The editor, Vinod Shidham, MD, FIAC, FRCPath, Professor of Pathology, Vice Chair of Anatomic Pathology, and Director of Cytopathology at Wayne State University School of Medicine, is arguably unmatched in his understanding of cell-block preparation methods and their utility in cytology practice. He brings a wealth of personal experience to the subject and has contributed to the development of commercially available, proprietary methods that have enlarged our armamentarium.

In an early chapter, Dr. Shidham begins with a sense of humor, admitting that, when reading the words “cell block,” a lay person is more likely to think of a prison than a tool for pathologic diagnosis. He offers a simple and practical solution: Let “cell block” refer to a prison cell, but hyphenate it, and “cell-block” is transformed from an object of fear into our familiar cytologic specimen.

The text is divided into six chapters, with a total of eight contributing authors, Dr. Shidham among them. All chapters were published between 2019 and 2021 as review articles in *CytoJournal*;^[4-9] this text brings them together in one convenient location. Chapter 1 is a review of cell-block techniques, the earliest of which go back many decades. These include the plasma-thrombin, gel, and collodion bag methods, as well as more advanced methods such as Cellient and Dr. Shidham's own contributions, the NextGen CelBloking Nano and Microdevices. The relative advantages and disadvantages of each method are scrupulously outlined. Understandably, given the author's experience and commitment to these methods, the Nano and Micro are described and illustrated with loving detail. Chapter 1 includes a discussion of the value of ammonium chloride-based reagents: non-alcohol-based solutions that have found a place as erythrocyte lysing reagents for bloody specimens. In Chapter 1 the author also points out that filtration through a nylon mesh bag is preferred over sedimentation for concentrating fatty specimens such as abdominal fat pad aspirates for amyloid. References include links to easily accessible videos that demonstrate fat pad aspiration and cell-block preparation.

Chapter 2^[5] reiterates some of the points in chapter 1,^[4] focusing on specific samples: FNAs, body cavity fluids, and even applications to veterinary science. Chapter 3^[6] is a review of the role of immunohistochemistry (IHC) applications to cytologic diagnosis using cell blocks as their substrate. Chapter 4^[7] reviews the role of cell blocks and IHC in the cytologic diagnosis of hemolymphoid lesions. Chapter 5^[8] reviews the role cell-blocks play in molecular genetic testing. Chapter 6^[9] highlights the role of cell blocks as small biopsies in displaying architectural features helpful for diagnosis. An excellent example is the valuable role they play in clarifying

the nature of hyperchromatic crowded groups in cervical cytology samples.

Are you looking to improve the quality of your cell blocks? Curious about the variety of methods available? Check out **CellBlockistry 101: The Textbook of Cell-blocking Science**. And don't forget the hyphen in cell-block, or people will think you're reading, writing, and thinking about prison life.

REFERENCES

1. Shidham VB. CellBlockistry 101. Cytojournal Monograph (CMAS). 1st ed. United States: Cytopathology Foundation Inc.; 2021. Available from: <https://www.cytojournal.com/monograph-series-1> [Last accessed on 2021 Aug 27].
2. Shidham VB. CellBlockistry 101. Cytojournal Monograph (CMAS). 1st ed. United States: Cytopathology Foundation Inc.; 2021. Available from: https://www.amazon.com/dp/b098b65psl/ref=dp_kinw_strp_2 [Last accessed 2021 Sep 02].
3. Shidham VB. CellBlockistry 101. Cytojournal Monograph (CMAS). 1st ed. United States: Cytopathology Foundation Inc.; 2021. Available from: <https://www.cytojournal.com/purchase-monograph/> [Last accessed 2021 Sep 02].
4. Shidham VB. CellBlockistry: Chemistry and art of cell-block making-a detailed review of various historical options with recent advances. Cytojournal 2019;16:12.
5. Shidham VB. Specimen-specific cell-blocking approaches. Cytojournal 2020;17:28.

6. Shidham VB, Layfield LJ. Cell-blocks and immunohistochemistry. Cytojournal 2021;18:2.
7. Alrajjal A, Choudhury M, Yang J, Gabali A. Cell-blocks and hematolymphoid lesions. Cytojournal 2021;18:7.
8. Shidham VB. Cell-blocks and other ancillary studies (including molecular genetic tests and proteomics). Cytojournal 2021;18:4.
9. Satturwar S, Pantanowitz L. Architectural aspects of cell-blocks as small biopsies. Cytojournal 2021;18:5.

How to cite this article: Cibas ES. CellBlockistry 101: The textbook of cell-blocking science. Cytojournal 2021;18:24.

HTML of this article is available FREE at: https://dx.doi.org/10.25259/Cytojournal_39_2021

The FIRST Open Access cytopathology journal

Publish in Cytojournal and **RETAIN** your *copyright* for your intellectual property

Become Cytopathology Foundation Member to get all the benefits

Annual membership fee is nominal US \$ 50 (US \$ 1000 for life)

In case of economic hardship it is free

For details visit <https://cytojournal.com/cf-member>

PubMed indexed

FREE world wide **open access**

Online processing with rapid turnaround time.

Real time dissemination of time-sensitive technology.

Publishes as many **colored high-resolution images**

Read it, cite it, bookmark it, use RSS feed, & many----



CYTOJOURNAL

www.cytojournal.com

Peer -reviewed academic cytopathology journal





NextGen CelBloking™ Kits

**Frustrated with your cell blocks?
We have a better solution!**

Nano

Nano NextGen CelBloking™

Cell block kit to process single scattered cell specimens and tissue fragments of **any** cellularity.



PATENT PENDING



Pack #1



Pack #2

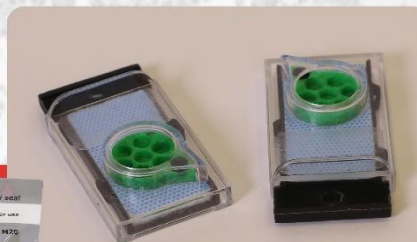
Micro

Micro NextGen CelBloking™

For cellular specimens (more than 1 ml concentrated specimen with Tissuecrit more than 50%)



PATENT PENDING



Pack #2

www.AVBioInnovation.com