

## **CURRICULUM VITAE**

### **AIDA LAURINAVIČIENĖ**

1968-05-05

PhD, Associate Professor

#### **Education**

2012 m. Vilnius University, National Cancer Institute, PhD studies

1995 m. Vilnius University, Faculty of Natural Sciences, Master's degree

#### **PhD Thesis**

Defended on 2012.04.20 „The study of biological diversity of ductal breast carcinoma by molecular and digital pathology methods“, admitted to the degree of doctor of Medicine

#### **Work Experience**

2012 – present      Assoc. Professor, Faculty of Medicine, Vilnius University  
2012 – present      Assoc. Professor, Faculty of Health Care, University of Applied Sciences  
2008 – 2012        Lecturer, Faculty of Health Care, University of Applied Sciences  
2001 – present      Course Leader and Lecturer, Centre of Nurse Continuous Education and Specialisation  
1997 – present      Head of Laboratory, National Centre of Pathology, Affiliate of Vilnius University Hospital Santaros Klinikos  
1995 – 1997        Junior Researcher, Faculty of Medicine, Vilnius University

#### **Awards**

2014 – present      Research Council of Lithuania, grant for PhD studies  
2015 – present      Research Council of Lithuania, grant for PhD studies

#### **Society Membership**

2002 – present      President, Lithuanian Association of Pathology Technologists  
2010 – present      Member, Digital Pathology Association

## Published Articles

### *Textbooks, encyclopedias*

1. „Breast cancer“, monograph, National Cancer Institute, 2016 (Vilnius, Petro ofsetas). – 547, [1] p. – ISBN 978-9986-784-99-9;
2. A.Laurinavičienė, R.Smaliukienė „Manual of Histology Technologies“, 2007.
3. A. Laurinavičienė, V. Žalgevičienė „Methods in Histology“. Chapter in the book „Primer on General Histology“, 2009.

### *Journals from the master list of ISI*

1. Besusparis J, Plancoulaine B, Rasmusson A, Augulis R, Green AR, Ellis IO, Laurinaviciene A, Herlin P, Laurinavicius A: Impact of tissue sampling on accuracy of Ki67 immunohistochemistry evaluation in breast cancer. *Diagn Pathol* 2016, 11(1):82.
2. Vaisnorienė I, Didziapetriene J, Zalgevičienė V, Laurinaviciene A, Vaisnoras T, Kulvietis V, et al. Reflectance confocal microscopy (RCM) and melanocyte-specific immunostaining of histologic skin sections. *J Am Acad Dermatol.* 2016;75(2):439-40.
3. Laurinavicius A, Plancoulaine B, Rasmusson A, Besusparis J, Augulis R, Meskauskas R, et al. Bimodality of intratumor Ki67 expression is an independent prognostic factor of overall survival in patients with invasive breast carcinoma. *Virchows Arch.* 2016;468(4):493-502.
4. Laurinavicius A, Plancoulaine B, Herlin P, Laurinaviciene A: Comprehensive immunohistochemistry: digital, analytical and integrated. *Pathobiology special issue. Pathobiology.* 2016;83(2-3):156-63.
5. Laurinavicius A, Plancoulaine B, Rasmusson A, Besusparis J, Augulis R, Meskauskas R, Herlin P, Laurinaviciene A, Abdelhadi Muftah A, Miligy I, Aleskandarany M, Rakha EA, Green AR, Ellis IO: Bimodality of intratumor Ki67 expression is an independent prognostic factor of overall survival in patients with invasive breast carcinoma. *Virchows Arch* 2016, Volume 468, Issue 4, pp 493-502.
6. Laurinavicius A, Green AR, Laurinaviciene A, Smailyte G, Ostapenko V, Meskauskas R, Ellis IO: Ki67/SATB1 ratio is an independent prognostic factor of overall survival in patients with early hormone receptor-positive invasive ductal breast carcinoma. *Oncotarget* 2015.
7. Plancoulaine B, Laurinaviciene A, Herlin P, Besusparis J, Meskauskas R, Baltrusaityte I, Iqbal Y, Laurinavicius A: A methodology for comprehensive breast cancer Ki67 labeling index with intra-tumor heterogeneity appraisal based on hexagonal tiling of digital image analysis data. *Virchows Arch* 2015.
8. Maciulaitis J, Deveikyte M, Rekstyte S, Bratchikov M, Darinskas A, Simbelyte A, Daunoras G, Laurinaviciene A, Laurinavicius A, Gudas R, et al: Preclinical study of SZ2080 material 3D microstructured scaffolds for cartilage tissue engineering made by femtosecond direct laser writing lithography. *Biofabrication* 2015, 7:015015.
9. Plancoulaine B, Laurinaviciene A, Meskauskas R, Baltrusaityte I, Besusparis J, Herlin P, Laurinavicius A: Digital immunohistochemistry wizard: image analysis-assisted stereology tool to produce reference data set for calibration and quality control. *Diagn Pathol* 2014, 9 Suppl 1:S8.

10. Laurinaviciene A, Plancoulaine B, Baltrusaityte I, Meskauskas R, Besusparis J, Lesciute-Krilaviciene D, Raudeliunas D, Iqbal Y, Herlin P, Laurinavicius A: Digital immunohistochemistry platform for the staining variation monitoring based on integration of image and statistical analyses with laboratory information system. *Diagn Pathol* 2014, 9 Suppl 1:S10.
11. Vaisnorienė I, Rotomskis R, Kulvietis V, Eidukevicius R, Zalgeviciene V, Laurinaviciene A, Venius J, Didziapetriene J: Nevomelanocytic atypia detection by in vivo reflectance confocal microscopy. *Medicina (Kaunas)* 2014, 50:209-215.
12. Daunoravicius D, Besusparis J, Zurauskas E, Laurinaviciene A, Bironaite D, Pankuweit S, Plancoulaine B, Herlin P, Bogomolovas J, Grabauskiene V, Laurinavicius A: Quantification of myocardial fibrosis by digital image analysis and interactive stereology. *Diagn Pathol* 2014, 9:114.
13. Laurinavicius A, Plancoulaine B, Laurinaviciene A, Herlin P, Meskauskas R, Baltrusaityte I, Besusparis J, Dasevicius D, Elie N, Iqbal Y, Bor C: A methodology to ensure and improve accuracy of Ki67 labelling index estimation by automated digital image analysis in breast cancer tissue. *Breast Cancer Res* 2014, 16:R35.
14. Stuopelyte K, Daniunaite K, Laurinaviciene A, Ostapenko V, Jarmalaite S: High-resolution melting-based quantitative analysis of RASSF1 methylation in breast cancer. *Medicina (Kaunas)* 2013, 49:78-83.
15. Arvydas Laurinavicius, Justinas Besusparis, Justina Didziapetryte, Gedmante Radziuviene, Raimundas Meskauskas, Aida Laurinaviciene: Digital immunohistochemistry: new horizons and practical solutions in breast cancer pathology *Diagnostic Pathology* 2013, 8(Suppl 1): S15, DOI: 10.1186/1746-1596-8-S1-S15.
16. Laurinavicius A, Laurinaviciene A, Ostapenko V, Dasevicius D, Jarmalaite S, Lazutka J: Immunohistochemistry profiles of breast ductal carcinoma: factor analysis of digital image analysis data. *Diagn Pathol* 2012, 7:27.
17. Laurinavicius A, Laurinaviciene A, Dasevicius D, Elie N, Plancoulaine B, Bor C, Herlin P: Digital image analysis in pathology: benefits and obligation. *Anal Cell Pathol (Amst)* 2012, 35:75-78.
18. Laurinaviciene A, Dasevicius D, Ostapenko V, Jarmalaite S, Lazutka J, Laurinavicius A: Membrane connectivity estimated by digital image analysis of HER2 immunohistochemistry is concordant with visual scoring and fluorescence in situ hybridization results: algorithm evaluation on breast cancer tissue microarrays. *Diagn Pathol* 2011, 6:87.
19. Jarmalaite S, Laurinaviciene A, Tverkuvienė J, Kalinauskaite N, Petroska D, Bohling T, Husgafvel-Pursiainen K: Tumor suppressor gene ZAC/PLAGL1: altered expression and loss of the nonimprinted allele in pheochromocytomas. *Cancer Genet* 2011, 204:398-404.

*Other peer-reviewed international journals*

20. J. Tverkuvienė, A. Laurinaviciene, K. Daniunaitė, A. Scesnaite, S. Jarmalaite: Frequent aberrant DNA methylation of CDKN2A locus in capillary hemangioblastomas, pheochromocytomas and gliomas. *Acta Medica Lithuanica*, 2011. Vol. 18. No. 1. P. 4–11.
21. A. Laurinaviciene, D. Petroska, J. Tverkuvienė, K. Daniunaite, A. Scesnaite, S. Jarmalaite: Frequent aberrant expression of p53 protein in gliomas, but not in capillary

- hemangioblastomas and pheochromocytomas. *Acta Medica Lithuanica*, 2009 Vol. 16. No. 3–4. P. 130–138.
22. Česas A., Stratilatos E., Laurinavičienė A. Biožymenų svarba gydant kolorektalinį vėžį biologine terapija cetuksimabu. *Onkologija: žurnalo Internistas priedas*. 2009; 4:58-59.

#### *Conference abstracts*

23. Daunoravicius D, Besusparis J, Zurauskas E, Laurinaviciene A, Bironaite D, Grabauskiene V, Laurinavicius A: Quantification of myocardial fibrosis by digital image analysis methods and pathologist visual scoring versus digital stereology. *Eur J Heart Fail* 2014, 16:222-222.
24. Laurinavicius A, Plancoulaine B, Laurinaviciene A, Herlin P, Meskauskas R, Baltrusaityte I, Besusparis J, Elie N, Belhomme P, Iqbal Y, Bor-Angelier C: A methodology to ensure and improve accuracy of Ki67 digital immunohistochemistry analysis in breast cancer tissue. *Molecular Cancer Research* 2013, 11.
25. Laurinavicius A, Laurinaviciene A, Meskauskas R, Baltrusaityte I, Besusparis J, Herlin P, Plancoulaine B, Elie N, Belhomme P, Bor-Angelier C: Automated image analysis enables accurate enumeration of the Ki-67 labelling index of breast cancer. *Virchows Archiv* 2013, 463(2):101-101.
26. Jarmalaite S, Laurinaviciene A, Tverkuvienė J, Daniunaite K, Scesnaite A, Ostapenko V, Lazutka J: Identification of Prognostic Molecular Biomarkers in Early-Stage Breast Cancer. *Cellular Oncology* 2010, 32(3):223-223.
27. S. Jarmalaite, A. Laurinaviciene, J. Dimonaite, A. Scesnaite, D. Dasevicius, V. Ostapenko, J. Lazutka: Epigenetic and genetic biomarkers, of early-stage breast cancer. *Cellular Oncology*, 30 (3): 259-260, 2008.
28. J. Dimonaite, A. Laurinaviciene, D. Petroska, N. Kalinauskaite, A. Scesnaite, S. Jarmalaite: Epigenetic changes in pathogenesis of VHL-related tumours and primary gliomas. *Cellular Oncology*, 30 (3): 254-255, 2008.
29. Jankauskiene S, Zurauskas E, Laurinaviciene A, Vaisnyte B, Barkauskas E, Kucinskiene Z, Laurinavicius A, Triponis V: Detection of *Chlamydia pneumoniae* and cytomegalovirus in atherosclerotic tissue and investigation of serological status of patients with chronic atherosclerosis in Lithuanian population. *Atherosclerosis Supplements* 2004, 5:14-15.
30. Jankauskiene S, Zurauskas E, Laurinaviciene A, Vaisnyte B, Barkauskas E, Kucinskiene Z, Laurinavicius A: Detection of *Chlamydia pneumoniae* in atherosclerotic tissue and investigation of serological status in patients with chronic atherosclerosis. *Atherosclerosis Supplements* 2004, 5:125-125.

#### *Main scientific reports*

1. “Digital immunohistochemistry platform for the staining variation monitoring based on integration of image and statistical analyses with laboratory information system”, 12th European Congress on Digital Pathology, 2014, Paris;
2. “Digital immunohistochemistry wizard: image analysis-assisted stereology tool to produce reference data set for calibration and quality control”, 12th European Congress on Digital Pathology, 2014, Paris;

3. “Automated image analysis enables accurate enumeration of the Ki-67 labeling index of breast cancer”, 25th European Congress of Pathology, 2013, Lisbon;
4. „Molecular pathology for diagnosis and treatment: The use of tissue microarrays for breast cancer research – experience at the National Center of Pathology“, 2010-02-26;
5. „Pathology diagnosis and treatment of Early breast cancer: Molecular characterization of early breast cancer: preliminary results of ongoing collaborative research project“, 2009-11-27;

### **Applied Scientific Activity**

1. “Academia and industry collaboration for digital pathology (AIDPATH)” (FP7).
2. Research Council of Lithuania project “LYMOS” (LYMOS-SP-12028).
3. Research Council of Lithuania project “Molecular Characterisation of Prostate and Breast Cancer” (C-07031, 343,200 Lt, 2007-2010).
4. Lithuanian State Science “Analysis of alterations in tumour suppressor gene ZAC in hemangioblastomas, pheochromocytomas and gliomas” (C-03/07).
5. Intensification of competence of the National Centre of Pathology in the sphere of early diagnostics and prevention of cancer diseases.

### **Continuous Education and Qualification Improvement**

1. Scientific internship, Cambridge, UK. AIDPATH FP7 project, 2016 (20 days);
2. XXXI International Congress of the IAP and 28<sup>th</sup> Congress of the ESP, 2016;
3. Essential Molecular Biology – A hands-on laboratory course (6 credits), Porto University, Portugal. Research Council of Lithuania project KEL-316/2015|LSS-150000-2780, 2016 (22 days);
4. Scientific internship, Vienna, Austria. AIDPATH FP7 project, 2015 (2 months);
5. Molecular Med TRI-CON, San Francisco, poster presenter, 2015;
6. Life Sciences Baltics, Vilnius, 2015;
7. 2<sup>nd</sup> International Scientific and practical conference “Molecular Techniques in Tissue-Based Pathology Diagnosis”, Vilnius, 2015;
8. HandsOn: Biobanks. From Biobanks to Medical Innovations, Helsinki, 2014;
9. 12<sup>th</sup> European Congress on Digital Pathology, Paris, 2014;
10. U.S. Approaches to INNOVATION, mita, Vilnius, 2014;
11. Pathology Informatics Summit, Pittsburgh, 2014;
12. “Pathology Visions” conference, San Diego, 2014;
13. 3<sup>rd</sup> Annual Conference “Euro-Bio-Forum”, Tallinn, 2014;
14. Advances in Breast Cancer Research, AACR, San Diego, 2013;
15. Vilnius Innovation Forum “Innovation Drift”, Vilnius, 2013;
16. Scientific internship, „François Baclesse Comprehensive Cancer Centre of Caen”, France. Research Council of Lithuania project, 2011 (30 days);
17. “Pathology Visions” conference, San Diego, poster presenter, 2010;
18. „Nottingham image analysis training school“, Lithuania, 2010 (5 days);
19. Training, Breast cancer screening centre, Nijmegen, Netherlands, 2007 (5 days);
20. Scientific internship, Rikshospitalet, Oslo, Norway, 2007 (5 days);
21. Training in FISH technology, Oncology Institute, Gliwice, Poland, 2005 (5 days);

22. Training of quality management in IHC techniques, „DAKO Cytomation“, Glostrup, Denmark and Stavanger, Norway, 2000 (10 days);
23. Training in cytotechnology, Pathology centre, Frankfurt, Germany, 2000 (15 days);
24. Training in histopathology techniques, Pathology Division, Brigham and Women's Hospital, Harvard Medical School, Boston, USA, 1999 (35 days);
25. Training in histotechnology, Kuopio University, Kuopio, Finland. Tempus program, 1997 (6 months).