

CURRICULUM VITAE

Imię i nazwisko: Katarzyna Białkowska

Adres:

Miejsce pracy: Center for Thrombosis
and Vascular Biology,
Dept. Molecular Cardiology, NB5-48
Cleveland Clinic Foundation
9500 Euclid Ave.
Cleveland Ohio 44195
Stany Zjednoczone
Telefon: 216-445-5139
Fax: 216-445-2054
E-mail: bialkok@ccf.org

Miejsce zamieszkania: **19436 Van Aken Blvd. #S306**
Shaker Heights
Ohio, 44122
Stany Zjednoczone

Dane osobowe:

Obywatelstwo: polskie, amerykańskie

Data i miejsce urodzenia: 16 marca 1968 roku, Skarżysko-Kamienna, Polska

Języki: polski, angielski

WYKSZTAŁCENIE

1995 Stopień doktora nauk przyrodniczych w zakresie biologii komórki, Instytut Biochemii, Uniwersytet Wrocławski

1991 Magister biotechnologii, Instytut Biochemii, Uniwersytet Wrocławski

ZATRUDNIENIE

2005- Project Scientist , Department of Molecular

Cardiology, Cleveland Clinic Foundation,
Cleveland, Ohio, Stany Zjednoczone

2001-2005 Research Associate, Department of Molecular
Cardiology, Cleveland Clinic Foundation,
Cleveland, Ohio, Stany Zjednoczone

1988-2001 Postdoctoral Fellow, Department of Molecular Cardiology, Cleveland
Clinic Foundation, Cleveland, Ohio, Stany Zjednoczone

09/1995–12/1995 Research Fellow, Departament Biologii, Abo Akademi University,
BioCity, Turku, Finlandia

1991-1995 Doktorant, Instytut Biochemii, Uniwersytet Wrocławski

ZAINTERESOWANIA NAUKOWE

Głównym tematem mojej pracy doktorskiej była charakterystyka oddziaływań spektryny erythrocytarnej z ankiryną i fosfolipidami w błonie erythrocytu. W toku naszej pracy badawczej ustaliliśmy model, w którym ankiryna i fosfolipidy wiążą czasteczke spektryny, używając tego samego miejsca wiązania, co sugeruje ważną rolę fosfolipidów w kotwiczeniu spektryny w błonie erythrocytów. Po przybyciu do Stanów Zjednoczonych, podczas mojej pracy w laboratorium doktor Joan Fox skupiłam się na udziale białek sygnałowych i białek cytoszkieletu w przekazywaniu sygnałów przez integryny. Moja praca wykazała zaangażowanie kalpajny, domeny SH3 spektryny, białka 14-3-3 i Tiam w aktywacji integryn przez Rac w komórkach śródbłónka, komórkach CHO, komórkach Hela i płytkach krwi. W 2009 roku dołączyłam do laboratorium doktora Edwarda Płow, gdzie moja praca koncentruje się na funkcji kindlin w regulacji przekazywania sygnałów przez integryny, w różnych typach komórek, ze szczególnym uwzględnieniem komórek hematopoetycznych, śródbłónka i rakowych.

NAGRODY I WYRÓŻNIENIA

09/1996 Nagroda Ministra Nauki i Szkolnictwa Wyższego
za prace doktorska zatytuowana „Współzależność
oddziaływań fosfolipidów i ankiryny ze spektryną
– model ankiryna:PE”.

04.10 2010 Cleveland Clinic Innovator Award za „Kindlin-2 as a new
anti-angiogenic target”

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Bialkowska, K., Zembron, A., and Sikorski, A.F. (1994) Ankyrin inhibits binding of erythrocyte spectrin to phospholipid vesicles. **Biochim. Biophys. Acta** 1191:21-26.

Sikorski, A.F., and **Bialkowska, K.** (1996) Interactions of spectrins with membrane intrinsic domain. **Cell. Mol. Biol. Lett.** 1:97-104.

Diakowski W., Prychidny A., Swistak M., Nietubyc M., **Bialkowska K.**, Szopa J., Sikorski AF. (1999) Brain spectrin (fodrin) interacts with phospholipids as revealed by intrinsic fluorescence quenching and monolayer experiments. **Biochem. J.** 338 (Pt 1):83-90

Bialkowska K., Kulkarni S., Du X., Goll D.E., Saïdo T.C., Fox J.E.B. (2000) Evidence that $\beta 3$ integrin-induced Rac activation involves the calpain-dependent formation of integrin clusters that are distinct from the focal complexes and focal adhesions that form as Rac and RhoA become active. **J. Cell Biol.** 151:685-696

Reddy K.B.*, **Bialkowska K***, and Fox J.E.B. (2001) Dynamic modulation of cytoskeletal proteins linking integrins to cytoskeletal complexes in spreading cells: Role of skelemin in initial integrin-induced spreading. **J. Biol. Chem.** 276(30): 28300-08 ***The first and second author contributed equally to this manuscript.**

Bialkowska K., Zaffran Y, Meyer SC, Fox JEB. (2003) 14-3-3 ζ mediates integrin-induced activation of CDC42 and RAC: platelet glycoprotein Ib-IX regulates integrin induced signaling by sequestering 14-3-3 ζ . **J. Biol. Chem.** 278(35): 33342-50

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Bledzka K., **Bialkowska K.**, Nie H., Qin J., Byzova T., Wu C., Plow EF., Ma YQ. (2010) Tyrosine phosphorylation of integrin beta3 regulates kindlin-2 binding and integrin activation. **J. Biol. Chem.** 285: 30370-4 PMC2945529

O'Toole TE., **Bialkowska K.**, Li X., Fox JE. (2011) Tiam1 is recruited to $\beta 1$ -integrin complexes by 14-3-3 ζ where it mediates integrin-induced rac1 activation and motility. **J. Cell Physiol.** 226(11): 2965-78

Pluskota E., Dowling J.J., Gordon N., Golden J.A., Szpak D., West X.Z., Nestor C., Ma YQ., **Bialkowska K.**, Byzova T., Plow E.F. (2011) The integrin coactivator kindlin-2 plays a critical role in angiogenesis in mice and zebrafish. **Blood** 117(18):4978-87 PMC3100704

Augoff K., Das M., **Bialkowska K.**, McCue B., Plow E.F., Sossey-Alaoui K. (2011) miR-31 is a broad regulator of β 1-integrin expression and function in cancer cells. **Mol. Cancer Res.** 9(11):1500-8 PMC3219821

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Sossey-Alaoui K, Pluskota E., Davuluri G., **Bialkowska K.**, Das M., Szpak D., Lindner D., J., Downs-Kelly E., Thompson C.,L., Plow E., F. (2014) Kindlin-3 enhances breast cancer progression and metastasis by activating Twist-mediated angiogenesis. **FASEB J.** 28(5):2260-71 PMC3986835

Xu Z., Chen X., Zhi H., Gao J., **Bialkowska K.**, Byzova T.V., Pluskota E., White G.C 2nd., Liu J., Plow E.F., Ma YQ. (2014) Direct interaction of kindlin-3 with integrin α IIb β 3 in platelets is required for supporting arterial thrombosis in mice. **Arterioscler Thromb Vasc Biol.** 2014 Sep;34(9):1961-7 PMC4167429

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Bialkowska K., Podrez E., Byzova T., Plow E., (2013) Agonist-Induced kindlin-3 phosphorylation regulates α IIB β 3 integrin activation in HEL cells and platelets (Oral presentation). ASH Meeting, published in **Blood** 122: p22

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