

PERSONAL INFORMATION **Alessandro Natoni**

 Sapienza University, Department of Translational and Precision Medicine, Policlinico Umberto I, Hematology Section, 1 Rovigo Street, 00161 Rome, Italy



Sex M

WORK EXPERIENCE

From 02/03/2023 to present

Senior researcher

Sapienza University, Department of Translational e Precision Medicine, Policlinico Umberto I, Hematology Section, Rome, Italy

Project title: The role of sialylation in haematological malignancies dissemination. Mentor: Prof. Robin Foà.

From 01/03/2020 to 01/03/2023

iCARE-2 Postdoctoral Fellow

Sapienza University, Department of Translational e Precision Medicine, Policlinico Umberto I, Hematology Section, Rome, Italy

Project title: The role of sialofucosylated structures in Multiple Myeloma progression and immune evasion. Mentor: Prof. Robin Foà.

From 01/02/2012 to 01/06/2019

Senior researcher

National University of Ireland Galway, School of Medicine, Galway, Ireland

Project title: Explore the role of E-Selectin/E-Selectin ligands interactions in Multiple Myeloma and its clinical application. Mentor: Prof. Michael O'Dwyer.

From 01/10/2009 to 01/02/2012

Postdoctoral researcher

National University of Ireland Galway, National Centre for Biomedical Engineering Science, Galway, Ireland

Project Title: Investigating the efficacy of a novel Cdc7/CDK9 kinase inhibitor in primary CLL cells. Supervisor: Prof. Corrado Santocanale.

From 07/08/2007 to 30/09/2009

Postdoctoral researcher

National University of Ireland Galway, Department of Biochemistry, Galway, Ireland

Project Title: Define novel therapeutic strategies to overcome Tumor necrosis factor-Related Apoptotic Inducing Ligand (TRAIL) resistance in cancer cells. Supervisor: Prof. Afshin Samali.

From 22/11/2005 to 17/11/2006

Postdoctoral researcher

Medical Research Council, University of Leicester, Toxicology Unit, Leicester, UK

Project Title: Apoptotic-inducing activity of a novel monoclonal agonistic antibody against DR5 in combination with a new histone deacetylase inhibitor (HDACi) in primary CLL cells. Supervisor: Prof. Gerald Cohen.

EDUCATION AND TRAINING

- 2006 **Ph.D. in Biomedical and Life Sciences**
University of Surrey, Guildford, UK.
Thesis on “Molecular mechanisms of Feline Calicivirus-induced apoptosis”. Supervisors: Dr Lisa O. Roberts and Dr George E.N. Kass.
- 2001 **Master’s degree in Biological Sciences (summa cum laude)**
University of Tuscia, Viterbo, Italy.
Experimental Thesis on “Factors modulating the genetic instability induced by Epstein-Barr virus in B lymphoma cells” (Italian language). Supervisor: Prof. Giampiero Gualandi.
- 1993 **High school diploma (Maturità Classica)**
Liceo Classico “Mariano Buratti”, Viterbo, Italy.

TEACHING EXPERIENCE

- Academic Year 2019-2020. Adjunct Professor in Genetics, University of Tuscia
- Academic Year 2018-2019. Delivered “Protein Homeostasis” lecture in the “MSc programme in Cancer Research”, NUIGalway
- Academic Year 2018-2019. Delivered “General Aspects of Haematological Malignancies” lecture in the “MSc programme in Cancer Research”, NUIGalway
- Academic Year 2017-2018. Delivered “Aseptic Technique for Tissue Culture Laboratory” practical module for the Cellular Manufacturing and Therapy MSc course, NUIGalway
- Academic Year 2017-2018. Delivered “Protein Homeostasis” lecture in the “MSc programme in Cancer Research”, NUIGalway
- Academic Year 2017-2018. Delivered “General Aspects of Haematological Malignancies” lecture in the “MSc programme in Cancer Research”, NUIGalway
- Academic Year 2017-2018. Delivered “Cancer Chemotherapy” module to the 2nd year Medical Students, NUIGalway
- Academic Year 2016-2017. Delivered “Protein Homeostasis” lecture in the “MSc programme in Cancer Research”, NUIGalway
- Academic Year 2016-2017. Delivered “General Aspects of Haematological Malignancies” lecture in the “MSc programme in Cancer Research”, NUIGalway
- Academic Year 2016-2017. Delivered “Cancer Chemotherapy” module to the 2nd year Medical Students, NUIGalway
- From 11/05/2005 to 15/05/2005. Demonstrator for the “Medical Microbiology” MSc course in the School of Biomedical and Molecular Sciences, University of Surrey, Guildford UK
- 07/02/2005. Demonstrator for the “Animal and Plant Virology” course and the Medical Microbiology MSc course in the School of Biomedical and Molecular Sciences, University of Surrey, Guildford UK
- From 07/04/2003 to 14/04/2003. Demonstrator for the “Medical Microbiology” MSc course in the School of Biomedical and Molecular Sciences, University of Surrey, Guildford UK

PERSONAL SKILLS

Mother tongue
Other language

Italian

UNDERSTANDING

SPEAKING

WRITING

Listening

Reading

Spoken interaction

Spoken production

English

C2

C2

C2

C2

C2

Certificate "Cambridge English: Proficiency" (CPE) C2 level awarded on 23-01-2019 and released by Cambridge English Language Assessment, Cambridge, UK

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- Excellent skills in writing journal articles, grant proposals and in delivering oral presentations at national and international meetings
- Ability to interact and assist students for teaching and mentoring
- Capable of cooperating with technical officers and head of the unit to improve the workplace and facilitate the experimental research
- Ability to collaborate with industrial partners and international academic institutions
- Reviewed scientific manuscript for peer-review journals

Organisational / managerial skills

- Set up a fully functional and equipped research laboratory
- Managed a team of four and the workplace
- Responsible for implementing Health and Safety in the workplace
- Assigned to laboratory finance and procurement duties
- Supervised final year undergraduate and postgraduate students in their practical and written work, designed and managed their projects and reviewed their dissertation

Job-related skills

- Highly skilled in advanced multicolour Flow Cytometry including Minimal Residual Disease monitoring for Multiple Myeloma, immunophenotyping, cell cycle and apoptosis, panel design, compensation and instrument set up. Experience in using the Image Stream Mark II
- Aseptic techniques for culturing mammalian cell lines and primary cells. Highly experienced in isolating hematopoietic cells from peripheral blood and bone marrow specimens using ficoll density centrifugation, positive and negative selection. Experience in cultivating cells in co-culture with stromal cells and under hypoxia using the InVivO2 Baker-Ruskinn Hypoxia Chamber
- Experienced in a broad range of laboratory techniques including confocal microscopy, immunoprecipitation, western blot, real time PCR, microscopy, rolling and adhesion assay under shear stress conditions, transfection and transduction, siRNA, high throughput screening, colony formation assay

Digital skills

SELF-ASSESSMENT

Information processing

Communication

Content creation

Safety

Problem solving

Proficient user

Proficient user

Proficient user

Proficient user

Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Microsoft Office Diploma (PowerPoint, Access, Word expert and Excel expert), certificate in Adobe Illustrator and Photoshop

- Proficient in flow cytometry software packages in clinical and research setting including, Infinicyt, Flow Jo and FACSCanto Diva
- Expert in Microsoft Office Word, Excel, PowerPoint and Access
- Basic knowledge of image editing software such as Adobe Photoshop, Illustrator and Image-Pro Premier

ADDITIONAL INFORMATION

Honours and awards

- iCARE-2 2019 Fellowship Co-funded by the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No 800924. Awarded on the
- Hematology Association of Ireland Educational Bursary, Special Merit. Awarded on the 17th of October 2015
- University Research Scholarship for a research degree (PhD) in the School of Biomedical and Life Sciences, University of Surrey, Guildford, UK. Awarded on the 1st of October 2002

Invited Speaker

- 2019, 31st January. Targeting sialylation within the tumor microenvironment in multiple myeloma. Advance theranostic nanomedicine in oncology. ERC starting grant SLaMM workshop, Pontedera, Pisa, Italy

Patents

- "Treatment of proliferative disorders with death receptors agonist", Publication Number: US 20110262455 A1, EP2352504A2, WO2010041140A2, WO2010041140A3 (2011)

Abstracts in proceedings

- 2018, 22nd February. Flow Cytometry Symposium, National University of Ireland, Galway "Role of platelets/myeloma interactions in malignant cells dissemination and metastasis"
- 2017, 31st May. Myeloma processing Workshop, National University of Ireland, Galway "MM sample processing procedure", "Immunophenotyping of MM with flow cytometry", "Isolation of CD138 positive myeloma cells"
- 2015, 16-17 October. Haematology Association of Ireland, Galway, Ireland. "E-selectin ligand expression increases with progression of myeloma and induces drug resistance in a murine transplant model, which is overcome by the glycomimetic E-selectin antagonist, GMI-1271"
- 2014, 16th December. Flow Cytometry Research Day, NUI Galway, Galway, Ireland. "Phenotypic characterization of a sub-population of multiple myeloma"
- 2010, 14-16 October. Haematology Association of Ireland, Galway, Ireland. "A dual Cdc7/CDK9 kinase inhibitor, PHA-767491, targets both quiescent and proliferating CLL cells"
- 2009, 15-17 October. Haematology Association of Ireland, Kilkenny, Ireland. "Apoptotic-inducing activity of PHA-767491, a new Cdc7/CDK9 inhibitor, in primary Chronic Lymphoid Leukemia cells"
- 2005, 1st July. 2nd annual Festival of Research, University of Surrey, Guildford, UK. "The activation of caspase 9 precedes mitochondrial Bax translocation and cytochrome c release in Feline Calicivirus-induced apoptosis"
- 2005, 4-7 April. Society for General Microbiology 156th meeting, Heriot-Watt University, Edinburgh, Scotland. "The activation of caspase 9 precedes mitochondrial Bax translocation and cytochrome c release in Feline Calicivirus-induced apoptosis"
- 2004, 6-10 November. 2nd International Calicivirus Conference, Dijon, France. "Feline Calicivirus-induced apoptosis occurs through the mitochondrial pathway"
- 2001, 10-11 May. ABCD Meeting "Stress Cellulare", Università Tor Vergata, Roma, Italia. "Oxidative stress induced by Epstein-Barr virus in B lymphoma cells"

Memberships

- Referee for the scientific journals "Toxicology and Applied Pharmacology" and "Journal of Cellular and Molecular Medicine"

- References** Prof Robin Foà (rfoa@bce.uniroma1.it), Prof Michael O'Dwyer (michael.odwyer@nuigalway.ie), Prof Corrado Santocanale (corrado.santocanale@nuigalway.ie)
- Courses**
- Multicolor Panel Design and FlowJo (Policlinico Univ. Agostino Gemelli, 2023)
 - Nature Masterclass in Scientific Writing and Publishing certificate (NUIGalway, 2017)
 - Chemical Safety for Users and Managers Training (NUIGalway, 2017)
 - Compressed Gas Safety Training (NUIGalway, 2017)
 - Laboratory Biological Safety Training (NUIGalway, 2017)
 - Workplace Posture and Manual Handling Training (NUIGalway, 2017)
 - Selecting and Awarding quotation & mini-tender competitions certificate (NUIGalway, 2016)
 - Second International IMF-Euro Flow Workshop in Myeloma Minimal Residual Disease (Salamanca, Spain, 2016)
 - Liquid Nitrogen /Cryogenics Workshop (NUIGalway, 2016)
 - Record of training handling and transportation of dangerous goods certificate (Mayo Medical Laboratories, 2011)
 - Commercialization and Enterprise certificate (University of Surrey, UK, 2005)
- Certifications**
- Office Skills Diploma (Excel, Word, PowerPoint, Access) awarded by the Pitman Training Galway on the 3rd May 2019. Level achieved distinction.
 - Cambridge English: Proficiency (CPE) C2 level awarded on the 23rd January 2019 and released by Cambridge English Language Assessment, Cambridge, UK
 - Photoshop CC certificate awarded by the Pitman Training Galway on 27th April 2018
 - Illustrator CC certificate awarded by the Pitman Training Galway on 27th April 2018
 - Selecting & Awarding Quotation and Mini-tender Competitions certificate awardee on the 18th May 2016 by the Procurements & Contracts Office, NUIGalway
 - Cambridge English: Advanced (CAE) C1 level awarded on the 3rd October 2016 and released by Cambridge English Language Assessment, Cambridge, UK
 - Last Ireland and UTG UK certificate for carrying out experimental and other scientific procedures on living animals awarded on the 28th June 2012
 - Animals (Scientific Procedures) Act 1986, University Training Group for carrying out experimental and other scientific procedures on living animals awarded on 18th July 2012 and released by Home Office, London, UK

SCIENTIFIC PUBLICATIONS

- Articles in a journal**
1. **Natoni A**, Cerreto M, De Propriis MS, Del Giudice I, Soscia R, Peragine N, Intoppa S, Milani ML, Guarini A, Foà R. (2023). Sialylation regulates migration in chronic lymphocytic leukemia. *Haematologica*. doi: 10.3324/haematol.2022.281999. Online ahead of print.
 2. Swan D, Henderson R, McEllistrim C, Naicker SD, Quinn J, Cahill MR, Mykytiv V, Lenihan E, Mulvaney E, Nolan M, Parker I, **Natoni A**, Lynch K, Ryan AE, Szegezdi E, Krawczyk J, Murphy P, O'Dwyer M. (2022). CyBOR-D-DARA in Newly Diagnosed Transplant-Eligible Multiple Myeloma: Results from the 16-BCNI-001/TRIAL-IE 16-02 Study Show High Rates of MRD Negativity at End of Treatment. *Clin Lymphoma Myeloma Leuk*. 22(11): 847-852 doi: 10.1016/j.clml.2022.07.011.
 3. Burke AJ, McAuliffe JD, **Natoni A**, Ridge S, Sullivan FJ, Glynn SA. (2022). Chronic nitric oxide exposure induces prostate cell carcinogenesis, involving genetic instability and a pro-tumorigenic secretory phenotype. *Nitric Oxide* 127:44-53. doi: 10.1016/j.niox.2022.07.005.
 4. Daly J, Sarkar S, **Natoni A**, Stark JC, Riley NM, Bertozzi CR, Carlsten M, O'Dwyer M. (2022). Targeting hypersialylation in multiple myeloma represents a novel approach to enhance NK cell-mediated tumor responses. *Blood Adv* 6(11):3352-3366. doi: 10.1182/bloodadvances.2021006805.
 5. Soh KT, Came N, Otteson GE, Jevremovic D, Shi M, Olteanu H, **Natoni A**, Lagoo

- A, Theakston E, Óskarsson JP, Gorniak M, Grigoriadis G, Arroz M, Fletcher M, Lin P, Ludwig P, Tembhare P, Matuzeviciene R, Radzevicius M, Kay S, Chen W, Cabrera C, Wallace PK. (2022). Evaluation of multiple myeloma measurable residual disease by high sensitivity flow cytometry: An international harmonized approach for data analysis. *Cytometry B Clin Cytom* 102(2):88-106. doi: 10.1002/cyto.b.22053.
6. Naicker SD, Feerick CL, Lynch K, Swan D, McEllistim C, Henderson R, Leonard NA, Treacy O, **Natoni A**, Rigalou A, Cabral J, Chiu C, Sasser K, Ritter T, O'Dwyer M, Ryan AE. (2021). Cyclophosphamide alters the tumor cell secretome to potentiate the anti-myeloma activity of daratumumab through augmentation of macrophage-mediated antibody dependent cellular phagocytosis. *Oncoimmunology* 10(1):1859263. doi:10.1080/2162402X.2020.1859263.
 7. Sarkar S, Chauhan SKS, Daly J, **Natoni A**, Fairfield H, Henderson R, Nolan E, Swan D, Hu J, Reagan MR, O'Dwyer M. (2020). The CD38low natural killer cell line KHYG1 transiently expressing CD16F158V in combination with daratumumab targets multiple myeloma cells with minimal effector NK cell fratricide. *Cancer Immunol Immunother* 69(3):421-434. doi: 10.1007/s00262-019-02477-8.
 8. Swan D, Delaney C, **Natoni A**, O'Dwyer M, Krawczyk J. (2020). Successful venetoclax salvage in the setting of refractory, dialysis-dependent multiple myeloma with t(11;14). *Haematologica* 105(3):e141-e143. doi: 10.3324/haematol.2019.228338.
 9. **Natoni A**, Farrell ML, Harris S, Falank C, Kirkham-McCarthy L, Macauley MS, Reagan MR, O' Dwyer M. (2020) Sialyltransferase inhibition leads to inhibition of tumor cell interactions with E-selectin, VCAM1, and MADCAM1, and improves survival in a human multiple myeloma mouse model. *Haematologica*. doi: 10.3324/haematol.2018.212266.
 10. O'Dwyer M, Henderson R, Naicker SD, Cahill MR, Murphy P, Mykytiv V, Quinn J, McEllistim C, Krawczyk J, Walsh J, Lenihan E, Kenny T, Hernando A, Hirakata G, Parker I, Kinsella E, Gannon G, **Natoni A**, Lynch K and Ryan AE. (2019) CyBorD-DARA is potent initial induction for MM and enhances ADCP: initial results of the 16-BCNI-001/CTRIAL-IE 16-02 study. *Blood Adv.* 25; 3(12):1815-1825 doi: doi: 10.1182/bloodadvances.2019000010.
 11. **Natoni A**, Smith T. A. G., Keane N., McEllistim C., Connolly C., Jha A., Andrusis M., Ellert E., Raab M.S., Glavey S.V., Kirkham-McCarthy L., Kumar S.K., Locatelli-Hoops S.C., Oliva I., Fogler W.E., Magnani J.L. and O'Dwyer M. (2017) E-selectin ligands recognised by HECA452 induce drug resistance in myeloma, which is overcome by the E-selectin antagonist, GMI-1271. *Leukemia* 12: 2642-2651. doi: 10.1038/leu.2017.123
 12. Glavey S.V., Manier S., **Natoni A**., Sacco A., Moschetta M., Reagan M.R., Murillo L.S., Sahin I., Wu P., Mishima Y., Zhang Y., Zhang W.J., Zhang Y., Morgan G., Joshi L., Roccaro A.M., Ghobrial I.M. and O'Dwyer, M. E. (2014) The sialyltransferase ST3GAL6 influences homing and survival in multiple myeloma. *Blood* 124, 1765-1776. doi: 10.1182/blood-2014-03-560862
 13. FitzGerald J., Murillo L.S., O'Brien G., O'Connell E., O'Connor A., Wu K., Wang G. N., Rainey M.D., **Natoni A**., Healy S., O'Dwyer M. and Santocanale C. (2014) A high through-put screen for small molecules modulating MCM2 phosphorylation identifies ryuvudine as an inducer of the DNA damage response. *Plos One* 9 (6): 1-11. doi: 10.1371/journal.pone.0098891
 14. **Natoni A**., Coyne M.R., Jacobsen A., Rainey M.D., O'Brien G., Healy S., Montagnoli A., Moll J., O'Dwyer, M. and Santocanale C. (2013) Characterization of a dual CDC7/CDK9 Inhibitor in multiple myeloma cellular models. *Cancers (Basel)* 5, 901-918. doi: 10.3390/cancers5030901
 15. Gupta S., Giricz Z., **Natoni A**., Donnelly N., Deegan S., Szegezdi E. and Samali, A. (2012) NOXA contributes to the sensitivity of PERK-deficient cells to ER stress. *Febs Lett* 586, 4023-4030. doi: 10.1016/j.febslet.2012.10.002
 16. Szegezdi, E., Reis, C. R., van der Sloot, A. M., **Natoni, A**., O'Reilly, A., Reeve, J., Cool, R. H., O'Dwyer, M., Knapper, S., Serrano, L., Quax, W. J., and Samali, A. (2011) Targeting AML through DR4 with a novel variant of rhTRAIL. *J Cell Mol Med*

- 15, 2216-2231. doi: 10.1111/j.1582-4934.2010.01211.x
17. **Natoni A.**, Murillo L.S., Kliszczak A.E., Catherwood M.A., Montagnoli A., Samali A., O'Dwyer M. and Santocanale C. (2011) Mechanisms of action of a dual Cdc7/Cdk9 kinase inhibitor against quiescent and proliferating CLL cells. *Mol Cancer Ther* 10, 1624-1634. doi: 10.1158/1535-7163.MCT-10-1119
 18. Napolitano C., **Natoni A.**, Santocanale C., Evensen L., Lorens J.B. and Murphy P. V. (2011) Isosteric replacement of the Z-enone with haloethyl ketone and E-enone in a resorcylic acid lactone series and biological evaluation. *Bioorg Med Chem Lett* 21, 1167-1170. doi: 10.1016/j.bmcl.2010.12.100
 19. Reis C.R., van der Sloot A.M., **Natoni A.**, Szegezdi E., Setroikromo R., Meijer M., Sjollem K., Stricher F., Cool R.H., Samali A., Serrano L. and Quax, W. J. (2010) Rapid and efficient cancer cell killing mediated by high-affinity death receptor homotrimerizing TRAIL variants. *Cell Death Dis* 1:e83. doi: 10.1038/cddis.2010.61
 20. Mahalingam D., **Natoni A.**, Keane M., Samali A. and Szegezdi E. (2010) Early growth response-1 is a regulator of DR5-induced apoptosis in colon cancer cells. *Brit J Cancer* 102, 754-764. doi: 10.1038/sj.bjc.6605545
 21. Reis C.R., van der Sloot A M., Szegezdi E., **Natoni A.**, Tur V., Cool R.H., Samali A., Serrano L. and Quax, W. J. (2009) Enhancement of antitumor properties of rhTRAIL by affinity increase toward its death receptors. *Biochemistry-Us* 48, 2180-2191. doi: 10.1021/bi801927x
 22. **Natoni A.**, MacFarlane M., Inoue S., Walewska R., Majid A., Knee D., Stover D.R., Dyer M.J.S. and Cohen, G. M. (2007) TRAIL signals to apoptosis in chronic lymphocytic leukaemia cells primarily through TRAIL-R1 whereas cross-linked agonistic TRAIL-R2 antibodies facilitate signalling via TRAIL-R2. *Brit J Haematol* 139, 568-577. doi: 10.1111/j.1365-2141.2007.06852.x
 23. Belfiore M.C., **Natoni A.**, Barzellotti R., Merendino N., Pessina G., Ghibelli L., and Gualandi, G. (2007) Involvement of 5-lipoxygenase in survival of Epstein-Barr virus (EBV)-converted B lymphoma cells. *Cancer Lett* 254, 236-243. doi: 10.1016/j.canlet.2007.03.010
 24. **Natoni A.**, Kass G.E.N., Carter M.J. and Roberts, L. O. (2006) The mitochondrial pathway of apoptosis is triggered during feline calicivirus infection. *J Gen Virol* 87, 357-361. doi: 10.1099/vir.0.81399-0
 25. Goodfellow I., Chaudhry Y., Gioldasi I., Gerondopoulos A., **Natoni A.**, Labrie L., Laliberte J. F. and Roberts, L. (2005) Calicivirus translation initiation requires an interaction between VPg and eIF4E. *Embo Rep* 6, 968-97. doi: 10.1038/sj.embor.7400510
- Reviews**
1. **Natoni A.**, Bohara R, Pandit A, O'Dwyer M. (2020). Targeted Approaches to Inhibit Sialylation of Multiple Myeloma in the Bone Marrow Microenvironment. *Front Bioeng Biotechnol* 7:252. doi: 10.3389/fbioe.2019.00252.
 2. **Natoni A.**, Macauley M. S., and O'Dwyer M. E. (2016) Targeting selectins and their ligands in cancer. *Front Oncol* 6:93. doi: 10.3389/fonc.2016.00093
 3. Keane N. A., Reidy M., **Natoni A.**, Raab M. S., and O'Dwyer M. (2015) Targeting the Pim kinases in multiple myeloma. *Blood Cancer J* 5:e325. doi: 10.1038/bcj.2015.46
- Book Chapter**
1. **Natoni A.**, O'Dwyer M. and Santocanale C. (2013) A cell culture system that mimics chronic lymphocytic leukemia cells microenvironment for drug screening and characterization. *Methods Mol Biol* 986, 217-226. doi: 10.1007/978-1-62703-311-4_14
- Meeting Abstracts**
1. **A. Natoni**, M. Cerreto, M. S. De Propriis, M. T. Petrucci, I. Del Giudice, S. Intoppa, M. L. Milani, L. Kirkham-McCarthy, R. Henderson, D. Swan, M. O'Dwyer, A. Guarini, R. Foà (2022). Sialofucosylated structures enable platelet binding to myeloma cells conferring protection from NK-mediated cytotoxicity. *HemaSphere* 6: p861
 2. Swan, D; O'Dwyer, ME; Cahill, M; Krawczyk, J; Mykytiv, V; Quinn, J; Henderson, R; McEllistram, C; Hernando, A; Parker, I; Nolan, M; Lenihan, E; Szegezdi, E; Naicker, SD; Lynch, K; **Natoni, A**; Ryan, A; Murphy, P (2021). Cybord-Dara in

- Newly Diagnosed Transplant-Eligible Multiple Myeloma: Follow up Results from the 16Bcni-001/Trial-IE 16-02 Study Show High Rates of MRD Negativity at End of Treatment. *Blood* 138 (1)
3. Daly, J; Sarkar, S; **Natoni, A**; Henderson, R; Swan, D; Carlsten, M; O'Dwyer, ME (2019). Hypersialylation Protects Multiple Myeloma Cells from NK Cell-Mediated Immunosurveillance and This Can be Overcome By Targeted Desialylation Using a Sialyltransferase Inhibitor. *Blood* 134 (1): 138
 4. Daly, J; Sarkar, S; **Natoni, A**; Henderson, R; Swan, D; Carlsten, M; O'Dwyer, ME (2019). Hypersialylation Protects Multiple Myeloma Cells from NK Cell-Mediated Immunosurveillance and This Can be Overcome By Targeted Desialylation Using a Sialyltransferase Inhibitor. *Clinical Lymphoma Myeloma & Leukemia* 19 (10): FP-181
 5. Henderson R., Kirkham-McCarthy L., Dawn Swan D., O'Dwyer M. and **Natoni A.** (2018) Platelets preferentially bind to myeloma cells bearing sialofucosylated structures and protect them from natural killer cell-mediated cytotoxicity. *Blood* 132 (1): 4453
 6. **Natoni A.**, Farrell M., Fairfield H., Kirkham-McCarthy L., Macauley M., Reagan M. and O'Dwyer M. (2018) Inhibition of sialylation impairs adhesion on MadCAM-1 and E-selectin and sensitize multiple myeloma cells to bortezomib in a xenograft mouse model. *Blood* 132 (1): 3204
 7. Sarkar S., Chauhan S., Stikvoort A., **Natoni A.**, Daly J., Henderson R., Mutis T. and O'Dwyer M. (2018) CD38^{low} natural killer cells transiently expressing CD16 (f158v) mRNA potentiates the therapeutic activity of Daratumumab against multiple myeloma with minimal effector NK cell fratricide. *Blood* 132 (1): 3199
 8. Henderson R., Cahill M.R., Murphy P., Mykytiv V., Quinn J., Walsh J., Lenihan E., Kenny T., Hernando A., Hirakata G., Parker I., Kinsella E., Gannon G., **Natoni A.** and Michael E O'Dwyer. (2018) Cybord-Dara is a highly effective upfront treatment for newly diagnosed multiple myeloma. Initial efficacy results of the 16-Bcni-001/Trial-IE (ICORG) 16-02 study. *Blood* 132 (1): 3242
 9. Sarkar S., Chauhan S., **Natoni A.**, Daly J., Henderson R. and O'Dwyer M. (2018) Engineering CD38 low natural killer cells to transiently express CD16 (f158v) mRNA enhances the cytotoxic potential of Daratumumab against multiple myeloma with minimal NK cell fratricide. *Human Gene Therapy* 29 (11): A8
 10. Reagan M., Farrell M., Macauley M., **Natoni A.**, Fairfield H. and Michael O'Dwyer. (2018) Combination targeting of sialylation and the proteasome inhibits tumor growth and increases survival in a humanized mouse multiple myeloma model. EHA Learning Center. 214984
 11. Daly J., Sarkar S., **Natoni A.**, Hu J., Chauhan S., Henderson R., Duggan T., Kirkham L., McEllistrim C. and Michael O'Dwyer. (2018) Targeting siglec-7: a novel immunotherapeutic approach to potentiate the cytotoxic functions of natural killer cells against multiple myeloma. EHA Learning Center. 216407
 12. Keane N., **Natoni A.**, Sharik M., Chesi M., Bergsagel P. L. and O'Dwyer, M. (2018) Novel kinase inhibitors afuresertib and PIM447 are active alone and in combination with standard therapies, respectively, in a predictive MM in vivo model, and a crispr genome-wide screening approach identifies clinically-relevant biomarkers determining susceptibility to these therapeutic strategies. *Haematologica* 103, 9-10
 13. Naicker S., Rigalou A., McEllistrim C., Henderson R., **Natoni A.**, Chiu C., Sasser K., Ryan A. and O'Dwyer, M. (2018) Low dose cyclophosphamide potentiates the anti-myeloma activity of Daratumumab through augmentation of macrophage-induced ADCP. *Haematologica* 103, 16-17
 14. Daly J., Sarkar S., **Natoni A.**, Hu J., Chauhan S., Henderson R., Duggan T., McCarthy P. L., McEllistrim C. and O'Dwyer, M. (2018) Targeting siglec-7: a novel immunotherapeutic approach to potentiate the cytotoxic functions of natural killer cells against multiple myeloma. *Haematologica* 103, 17

15. Daly J., Duggan T., Hu J.S., **Natoni A.**, Sarkar S., Kirkham-McCarthy L., McEllistim, C., Krawczyk, J. and O'Dwyer, M. (2017) Targeting Siglec-7: a novel immunotherapeutic approach to potentiate the cytotoxic functions of natural killer cells against multiple myeloma. *Blood* 130 (1): 1799
16. Naicker S., Rigalou, A., McEllistim C., **Natoni A.**, Chiu C., Sasser K., Ryan A. and O'Dwyer M. (2017) patient data supports the rationale of low dose cyclophosphamide to potentiate the anti-myeloma activity of Daratumumab through augmentation of macrophage-induced ADCP. *Blood* 130 (1): 121
17. Rigalou A., Ryan A., **Natoni A.**, Chiu C., Sasser K., and O'Dwyer M. E. (2016) potentiation of anti-myeloma activity of Daratumumab with combination of cyclophosphamide, lenalidomide or bortezomib via a tumor secretory response that greatly augments macrophage-induced ADCP. *Blood* 128 (22): 2101
18. Connolly C., Jha A., **Natoni A.** and O'Dwyer M. (2016) A 13-glycosylation gene signature in multiple myeloma can predicts survival and identifies candidates for targeted therapy (GiMM13). *Blood* 128 (22):4423
19. **Natoni A.**, Smith T. A. G., Keane N., Locatelli-Hoops S. C., Oliva I., Fogler W.E., Magnani J.L. and O'Dwyer M. (2015) E-selectin ligand expression increases with progression of myeloma and induces drug resistance in a murine transplant model, which is overcome by the glycomimetic e-selectin antagonist, GMI-1271. *Blood* 126 (23): 1805
20. Keane N., Reidy M., **Natoni A.** and O'Dwyer M. (2015) Concurrent inhibition of Pim and Akt pathways with PIM447 and afuresertib activates FOXO3a and depletes c-myc to induce synergistic cell death in multiple myeloma. *Blood* 126 (23): 3007
21. **Natoni A.**, Moschetta M., Glavey S., Wu P., Morgan G.J., Joshi L., Magnani J.L., Ghobrial I.M. and O'Dwyer, M. E. (2014) Multiple myeloma cells express functional E-selectin ligands which can be inhibited both in-vitro and in-vivo leading to prolongation of survival in a murine transplant model. *Blood* 124 (21): 4718
22. Glavey S., Manier S., Sacc, A., Reagan M.R., Mishima Y., Zhang Y., Sahin I., Zhang Y., Zhang W.J., Murillo L.S., Loughrey C., **Natoni A.**, Kazlowska K., Joshi L., Roccaro A.M., Ghobrial I.M. and O'Dwyer, M. (2013) Silencing the sialyltransferase gene ST3GAL6 inhibits adhesion and migration of myeloma cells in vitro and reduces the homing and proliferation of tumor cells in vivo. *Blood* 122 (21): 275
23. Reis C.R., van der Sloot A.M., Szegezdi E., **Natoni A.**, Tur V., Cool R.H., Samali A., Serrano L. and Quax, W. J. (2011) Enhancement of antitumor properties of rhTRAIL by affinity increase toward its death receptors. *Adv Exp Med Biol* 691, 807-808
24. Szegezdi E, van der Sloot A.M., **Natoni A.**, Mahalingam D., Cool R.H., Munoz I.G., Montoya G., Quax W. J., de Jong Luis Serrano S. and Samali A. (2011) Improved tumor cell killing by TRAIL requires selective and high affinity receptor activation. *Adv Exp Med Biol* 691, 808
25. Quax W.J., Reis C.R., van der Sloot A.M., Tur V., Szegezdi E., **Natoni A.**, Cool R.H., Samali A. and Serrano, L. (2011) Designed receptor specific rhTRAIL variants enhance induction of apoptosis in cancer cells. *Adv Exp Med Biol* 691, 726-727
26. Santocanale A., **Natoni A.**, Murillo L., Catherwood M., Montagnoli A., Samali A. and O'Dwyer, M. (2010) Dual Cdc7/Cdk9 kinase inhibitor, PHA-767491, targets both quiescent and proliferating CLL cells. *Ejc Suppl* 8, 161
27. **Natoni A.**, Hayat A., Montagnoli A., Callagy G., Samali A., Santocanale C. and O'Dwyer, M. C. (2009) PHA767491, a Dual Cdc7/CDK9 inhibitor, with potential to target both proliferation and survival in CLL. *Blood* 114 (22): 2366

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- Hirsch index: 16 (data base Scopus)

- Total citations (without self-citations): 786 (data base Web of Science)
- Average Citations per Item: 17.87 (data base Web of Science).

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