YOON-KYOUNG CHO

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EDUCATION

1994.08 - 1999.05.	Ph.D. in Materials Science and Engineering Univ. of Illinois at Urbana-Champaign (UIUC), USA Thesis: Structure and Dynamics of Confined Molecules Advisor: Prof. Steve Granick
1992.03 - 1994.02.	M.S. in Chemical Engineering, POSTECH, Korea Thesis: Development of Ceramic Membranes for CO_2 Separation Using Sol-Gel Reaction, Advisor: Prof. Kunhong Lee
1988.03 - 1992.02	B.S. in Chemical Engineering., POSTECH, Korea

PROFESSIONAL EXPERIENCES

2024.09 –Present	*Professor*, Biomedical Engineering, Dean, College of Information and Biotechnology, UNIST, Korea
2016.09 –2024.12.	*Group leader*, Center for soft and Living Matter (Center for Algorithmic and Robotized Synthesis, 2024.01~), IBS, Korea *Professor*, Biomedical Engineering, UNIST, Korea
2015.11 –2016.08	*Group leader*, Center for soft and Living Matter, IBS, Korea *Associate Professor*, Biomedical Engineering, UNIST, Korea
2014.03 -2015.10	*Associate Professor, Chair*, School of Life Sciences, UNIST, Korea
2010.09 -2014.02	*Associate Professor, Chair*, School of Nano-Bioscience and Chemical Engineering, UNIST, Korea
2008.07 - 2010.08	*Assistant Professor, Chair*, School of Nano-Bioscience and Chemical Engineering, UNIST, Korea
1999.06 - 2008.07	*Senior Researcher*, Samsung Advanced Institute of Technology (SAIT), Korea. R&D on Lab-on-a-disc for blood analysis (2006. 1. - 2008. 7.) On-chip sample preparation for molecular diagnostics (2004. 9. - 2005.12.), Quantitative Real-Time Micro PCR (2000. 1. - 2004. 8.), and Label-free biosensors for DNA detection (1999.12. - 2002. 9.)
1999.09-1999.11	Visiting Scholar, Materials Science and Engineering, UIUC, USA

HONORS AND AWARDS

- **Member of the National Academy of Engineering of Korea (NAEK), Korea** (2024)
- **Vice president, Chemical and Biological Microsystems Society, CBMS** (2023)
- **National Top 100 R&D Performances, Ministry of Science and ICT,** Korea (2023)
- **Presidential Citation Ribbon**, Korea (2023)
- **National Top 100 R&D Performances, Ministry of Science and ICT,** Korea (2022)
- Outstanding Citizen Award 2021 (Academic/Science), Ulsan Metropolitan City, Korea (2021)
- Outstanding Faculty Award 2020, UNIST, Korea (2021)
- **Associate Member of the National Academy of Engineering of Korea (NAEK), Korea** (2021)
- BRIC Top 5 Research in 2020, Bioengineering, Korea (2020)
- **Board of directors, Chemical and Biological Microsystems Society, CBMS** (2019)
- **National Top 100 R&D Performances, Ministry of Science and ICT,** Korea (2019)
- **Ministry commendation, Ministry of Health and Welfare**, Korea (2017)
- **Invited lecture at the Nobel Symposium** on Microfluidics, Sweden (2017)
- BRIC Top 5 Research in 2017, Bioengineering, Korea (2017)
- **Fellow of Royal Society of Chemistry (FRSC)** (2016)
- Science Mentor Award, Woman in Science, Engineering, and Technology (WISET), DongA Science, Korea (2015)
- Distinguished Service Award, Korean Institute of Chemical Engineers, Korea (2014)
- Distinguished Service Medal, Biochip Society, Korea (2012)
- **Best Faculty of the Year Award, UNIST** (2012)
- Ministry of Knowledge Economy, Minister Award, Korea (2011)
- **Korean Woman Engineer of the Year**, Young Engineering Award, Korea Venture Business Women's Association (2010)
- National Research Foundation (NRF) Award for Young Mentors, Korea (2009)
- **SAMSUNG CEO's Award for Best Technology Achievement of the Year**, Korea (2007)
- SAMSUNG Best Paper Award, SAMSUNG group, Silver Prize, Korea (2007)
- Frontier Research Award, Lab-on-a-Disc Project, SAIT, Korea (2007)
- Breakthrough Technology Award, Lab-on-a-Disc Project, SAIT, Korea (2007)
- Outstanding Researcher Award, Bio Device Research Lab. SAIT, Korea (2006)
- SAMSUNG Best Paper Award, SAMSUNG group, Bronze Prize Paper, Korea (2004)

- **SAMSUNG CEO's Award for Best Technology Achievement of the Year**, Korea (2004)
- Six Sigma Best Practice Award, SAIT, Korea (2004)
- Six Sigma Best Practice Award, SAIT, Korea (2003)
- Breakthrough Technology Award, MicroPCR Project, SAIT, Korea (2003)
- **The Racheff Award** for Outstanding Graduate Research, Department of Materials Science and Engineering, UIUC, USA (1998)
- Research Assistantship, UIUC, USA (1994-1999)
- Hyogok scholarship, POSTECH, Korea (1988-1992)

PROFESSIONAL ACTIVITIES

- Journal Editors/Editorial Board
  - ***Lab on a Chip, Associate Editor (2019.02.-Present),*** *Editorial board member (2013-2019)*
  - *Analyst, Advisory board member (2012-Present)*
  - *Micromachines, Editorial board member (2015-Present)*

- Conference Committees
  - *MicroTAS, Executive Committee*
  - ***IEEE EMBS Micro and Nanotechnology in Medicine Conference, December 5-9, 2022, Disney Aulani, Hawaii, Program Chair***
  - ***IEEE EMBS Micro and Nanotechnology in Medicine Conference, Virtual meeting (2020), Program Chair***
  - ***The 10th International Symposium on Microchemistry and Microsystems (ISMM) 2018, Busan, Korea, Chair***
  - *The 8th International Conference on Micro technologies in Medicine and Biology 2016, Seoul, Korea, Local Committee*
  - *MicroTAS 2015, Gyeongju, Korea, Organization Committee*
  - ***MicroTAS 2013-2016, Executive Technical Program Committee (ETPC)***
  - *Organization Committee for APCE 2013, Jeju, Korea.*
  - *IEEE MEMS 2012 Conference, June 10-13, 2012 in Hsinchu, Taiwan, Technical Program Committee*
  - ***The Korean BioChip Society, Fall meeting, Nov. 3-4, 2011, Ulsan, Korea, Chair***
  - *The International Symposium on Microchemistry and Microsystems (ISMM), Jun. 2 - 4, 2011, Seoul, Korea, a local organizing committee, session chair*
  - *International Workshop on Chemi-Thermo-EM Phoresis in Complex Fluids, Aug. 25 - 28, 2010, Pohang, Korea, a local organizing committee*

- **Committees**
  - ***Presidential Advisory Council on Science & Technology, member*** *(2017-2019)*
  - ***Ministry of Personnel Management, Advisory committee*** *(2018-)*
  - *Korean Institute of Chemical Engineers, Board of Trustees (2013-)*
  - *Korea Biochip Society, Committee chair of Ulsan/Busan branch (2013-)*
  - *Korea Nano Technology Research Society, member (2007-)*
  - *Korea Institute of Chemical Engineers, Committee of materials division (2010-)*
  - *Korea Biochip Society, Committee of Research and Education division (2010-)*
  - *SAMSUNG Human Tech Paper Award, Review committee (2009 -)*
  - *SAMSUNG Journal of Innovative Technology, Review committee (2007- 2008)*
  - *The Samsung Lee Kun Hee Scholarship Foundation, committee (2004 - 2008)*
  - *National Cancer Control Program, Review committee (2002 - 2006)*
  - *Project Planning TF Member, Search for the Next Generation New Technology, Ministry of Commerce, Industry and Energy (MOCIE), Korea (1999)*

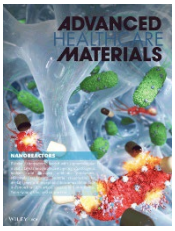
PUBLICATIONS

Google scholar h-index: 59 (2025.08)

* = corresponding authors; § = equal contribution

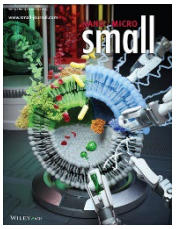
1. Tran et al., "Extracellular Vesicles for Clinical Diagnostics: From Bulk Measurements to Single-Vesicle Analysis", ACS nano, 19, 31, 28021-28109 (2025)
2. Jooyoung Ro, Junyoung Kim, Juhee Park, Yongjun Cho, and Yoon-Kyoung Cho*, "ODSEI Chip: An Open 3D Microfluidic Platform for Studying Tumor Spheroid-Endothelial Interactions", **Advanced Science**, 12, 13, 2410659 (2025)
3. Mamata Karmacharya, Issac Michael, Jiyun Han, Elizabeth Maria Clarissa, Oleksandra Gulenko, Sumit Kumar, Yoon-Kyoung Cho*, "Nanoplasmonic SERS on Fidget Spinner for Digital Bacterial Identification", **Microsystems & Nanoengineering**, 11, 1, 38 (2025)
4. Elizabeth Maria Clarissa, Sumit Kumar*, Juhee Park, Mamata Karmacharya, In-Jae Oh*, Mi-Hyun Kim, Jeong-Seon Ryu, Yoon-Kyoung Cho*, "Digital Profiling of Tumor Extracellular Vesicle-Associated RNAs Directly from Unprocessed Blood Plasma", **ACS Nano** 19, 5, 5526-5538 (2025)
5. Jonathan Sabaté del Río, Yeonzu Son, Juhee Park, Vijaya Sunkara, Yoon-Kyoung Cho*, "Microfluidic Dielectrophoretic Purification of Extracellular Vesicles from Plasma Lipoproteins", **Langmuir** 40, 49, 25772–25784 (2024)

6. Junyoung Kim, Jooyoung Ro, Yoon-Kyoung Cho*, "Vascularized platforms for investigating cell communication via extracellular vesicles", **Biomicrofluidics** 18, 051504 (2024)
7. Hyun-Kyung Woo, Juhee Park, Kyung Hwan Kim, Ja Yoon Ku, Hong Koo Ha*, Yoon-Kyoung Cho*, "Alix-normalized exosomal programmed death-ligand 1 analysis in urine enables precision monitoring of urothelial cancer", **Cancer Science** 115 (5), 1602-1610 (2024)
8. Cong Hu, Qi Chen, Tianyang Wu, Xinxing Du, Yanhao Dong, Zehong Peng, Wei Xue, Vijaya Sunkara*, Yoon-Kyoung Cho*, Liang Dong*, "The role of extracellular vesicles in the treatment of prostate cancer", **Small**, 2311071 (2024)
9. Aaron Wheeler, Jean-Christophe Baret, Yoon-Kyoung Cho, Amy Herr, Xingyu Jiang, Séverine Le Gac, Hang Lu, Manabu Tokeshi, Hongkai Wu, Rebecca Garton, Alice Smallwood, David Lake, Harpal Minhas, "The evolution of miniaturization, automation, and integration–a new scope for Lab on a Chip", **Lab on a Chip**, 24, 1541-1541 (2024)
10. Joshua A Welsh, et. al. "Minimal information for studies of extracellular vesicles (MISEV2023): From basic to advanced approaches", **Journal of extracellular vesicles**, 13, 2, e12404 (2024)
11. Chaeeun Lee, Sumit Kumar, Juhee Park, Yong-Jun Choi, Elizabeth Maria Clarissa, Yoon-Kyoung Cho*, "Tonicity-induced Cargo Loading into Extracellular Vesicles", **Lab on a Chip**, 24,2069–2079 (2024)
12. Mamata Karmacharya, Sumit Kumar*, Yoon Jeong Choi, Yoon-Kyoung Cho*, "Platelet membrane-enclosed biorthogonal catalysis for combating dental caries", **Advanced Healthcare Materials**, 2302121, (2024)



13. Vijaya Sunkara, Juhee Park, Jiyun Han, Jonathan Sabaté Del Río, Hyun-Ju Cho, In-Jae Oh, Yoon-Kyoung Cho*, "Exosome precipitation by ionic strength modulation: ExoPRISM", **ACS Applied Materials & Interfaces**, (2023)
14. Chi-Ju Kim, Anna LK Gonye, Kevin Truskowski, Cheng-Fan Lee, Yoon-Kyoung Cho, Robert H Austin, Kenneth J Pienta, Sarah R Amend, "Nuclear morphology predicts cell survival to cisplatin chemotherapy", **Neoplasia**, 42, 100906 (2023)
15. Taegeun Song, Yongjun Choi, Jae-Hyung Jeon* and Yoon-Kyoung Cho*, "A machine learning approach to discover migration modes and transition dynamics of heterogeneous dendritic cells", **Frontiers in Immunology**., 14, 1321 (2023)

16. Mamata Karmacharya, Sumit Kumar*, Yoon-Kyoung Cho*, "Tuning the Extracellular Vesicles Membrane through Fusion for Biomedical Applications", **Journal of Functional Biomaterials** 14 (2), 117 (2023)
17. Jonathan Sabaté del Río, Jooyoung Ro, Heejeong Yoon, Tae-Eun Park*, Yoon-Kyoung Cho*, "Integrated technologies for continuous monitoring of organs-on-chips: Current challenges and potential solutions", **Biosensors and Bioelectronics**, 224, 115057 (2023)
18. Sumit Kumar, Mamata Karmacharya, Yoon-Kyoung Cho*, "Bridging the Gap between Nonliving Matter and Cellular Life" **Small,** 19 (13), 2370082 (2023) *Journal Cover*



19. Junyoung Kim, Vijaya Sunkara, Jungmin Kim, Jooyoung Ro, Chi-Ju Kim, Elizabeth Maria Clarissa, Sung Wook Jung, Hee Jin Lee and Yoon-Kyoung Cho*, "Prediction of tumor metastasis via extracellular vesicles-treated platelet adhesion on a blood vessel chip", **Lab on a Chip**, 22, 2726 (2022)
20. Jonathan Sabaté del Río, Hyun-Kyung Woo, Juhee Park, Hong Koo Ha, Jae-Ryong Kim, Yoon-Kyoung Cho*, "SEEDING to Enable Sensitive Electrochemical Detection of Biomarkers in Undiluted Biological Samples", **Advance Materials**, 34, 24, 220981, (2022) *Journal Cover*

21. Jooyoung Ro, Junyoung Kim, Yoon-Kyoung Cho*, "Recent advances in spheroid-based microfluidic models to mimic tumour microenvironment", **Analyst**, 147, 2023-20342022, (2022)
22. Jisu Lee, Hyun Sik Park, Seung Ro Han, Yun Hee kang, Ji Young Mun, Dong Wook Shin, Hyun-Woo Oh, Yoon-Kyoung Cho, Myung-Shin Lee*, Jinsung Park*, " Alpha-2-macroglobulin as a novel diagnostic biomarker for human bladder cancer in urinary extracellular vesicles", **Frontiers in Oncology**, 12, (2022)
23. Chi-Ju Kim, Morgan D. Kuczler, Liang Dong, Junyoung Kim, Sarah R. Amend, Yoon-Kyoung Cho*, Kenneth J. Pienta*, "Extracellular Vesicle Uptake Assay via Confocal Microscope Imaging Analysis", **Journal of Visualized Experiments: Jove**. 2022 Feb (180). DOI: 10.3791/62836
24. Hyemin Kim, Chan Mi Heo, Jinmyeong Oh, Eun Mi Lee, Juhee Park, Se-Hoon Lee, Kwang Hyuck Lee, Kyu Taek Lee, Jong Kyun Lee, Yoon-Kyoung Cho*, Joo Kyung Park*, "Clinical Significance of Circulating Tumor Cells in Unresectable Pancreatic Ductal Adenocarcinomas", **Translational Oncology**, 16, 101321 (2022)
25. Yongjun Choi, Vijaya Sunkara, Yeojin Lee, and Yoon-Kyoung Cho*", Exhausted mature dendritic cells exhibit a slower and less persistent random motility but retain chemotaxis against CCL19", **Lab on a Chip**, 22, 377 (2022)

26. Yongjun Choi, Jae-Eun Kwon, and Yoon-Kyoung Cho*, "Dendritic Cell Migration Is Tuned by Mechanical Stiffness of the Confining Space", **Cells**, 10(12), 3362 (2021)

27. Joon Hyung Jhi, Gwang Ha Kim*, Su Jin Park, Dong Uk Kim, Moon Won Lee, Bong Eun Lee, Chae Hwa Kwon, and Yoon-Kyoung Cho, "Circulating Tumor Cells and TWIST Expression in Patients with Metastatic Gastric Cancer: A Preliminary Study"**, J. Clin. Med.**, 10(19), 4481 (2021)

28. Chi-Ju Kim, Jungmin Kim, Jonathan Sabaté del Río, Dong Yeob Ki, Junyoung Kim, Yoon-Kyoung Cho*, "Fully automated light transmission aggregometry on a disc for platelet function tests", **Lab on a Chip**, 21, 4707-4715 (2021)

29. Minji Lim, Suhyun Park, Hyoung-Oh Jeong, Sung Hee Park, Sumit Kumar, Aelee Jang, Semin Lee, Dong Uk Kim*, Yoon-Kyoung Cho*, "Circulating Tumor Cell Clusters Are Cloaked with Platelets and Correlate with Poor Prognosis in Unresectable Pancreatic Cancer", **Cancers** 13, 21, 5272 (2021)

30. Sumit Kumar, Mamata Karmachary, Issac Michael, Yonjun Choi, Junyoung Kim, Inun Kim, Yoon-Kyoung Cho* "Programmed exosome fusion for energy generation in living cells", **Nature Catalysis**, 4, 763-774 (2021) *Journal Cover*

31. Vijaya Sunkara, Sumit Kumar, Jonathan Sabaté del Río, Insu Kim, Yoon-Kyoung Cho*, "Lab-on-a-disc for Point-of-care Infection Diagnostics", **Accounts of Chemical Research**, 54, 19, 3643-3655 (2021)

32. Mamata Karmachary, Sumit Kumar, Chaeeun Lee, Yoon-Kyoung Cho*, "Lab-on-a-disc for ultrafast plasmonic assay of cysteamine", **Biosensors and Bioelectronics**, 194, 15, 113584 (2021)

33. Chi-Ju Kim, Liang Dong, Sarah R. Amend*, Yoon-Kyoung Cho*, and Kenneth J. Pienta*, "The role of liquid biopsies in prostate cancer management", **Lab on a Chip**, 21, 3263 - 3288 (2021)

34. Ritesh Soni, Shalik Ram Joshi, Mamata Karmacharya, Hyegi Min, Shin-Kwan Kim, Sumit Kumar*, Gun-Ho Kim*, Yoon-Kyoung Cho*, and Chang Young Lee* "Superhydrophobic and Self-Sterilizing Surgical Masks Spray-Coated with Carbon Nanotubes", **ACS Applied Nano Materials**, 4, 8, 8491–8499 (2021)

35. Anubhab Acharya, Sateesh Dubbu, Sumit Kumar, Nitee Kumari, Yeseul Kim, Sunae So, Taewan Kwon, Zhipeng Wang, Junbeom Park, Yoon-Kyoung Cho, Junsuk Rho, Sang Ho Oh, Amit Kumar, In Su Lee*, "Atomically Conformal Metal Laminations on

Plasmonic Nanocrystals for Efficient Catalysis", **J. Am. Chem. Soc.** 143(28) 10582–10589 (2021)

36. Divakara SSM Uppu, Yoohong Min, Inun Kim, Sumit Kumar, Juhee Park, and Yoon-Kyoung Cho*, "Glycolipid-Anchored Proteins on Bioengineered Extracellular Vesicles for Lipopolysaccharide Neutralization", **ACS Appl. Mater. Interfaces** 13(25) 29313–29324 (2021)

37. Thanh Huyen Phan, Shiva Kamini Divakarla, Jia Hao Yeo, Qingyu Lei, Priyanka Tharkar, Taisa Nogueira Pansani, Kathryn G Leslie, Maggie Tong, Victoria A Coleman, Åsa Jämting, Mar-Dean Du Plessis, Elizabeth J New, Bill Kalionis, Philip Demokritou, Hyun-Kyung Woo, Yoon-Kyoung Cho, Wojciech Chrzanowski*, "New Multiscale Characterization Methodology for Effective Determination of Isolation–Structure–Function Relationship of Extracellular Vesicles", **Frontiers in Bioengineering and Biotechnology**, 9, 358. (2021)

38. Eujin Um, Yoon-Kyoung Cho*, Joonwoo Jeong*, "Spontaneous wrinkle formation on hydrogel surfaces using photoinitiator diffusion from oil-water interface", **ACS Applied Materials & Interfaces**, 13, 13, 15837–15846 (2021)

39. Huan Wang, Myeonggon Park, Ruoyu Dong, Junyoung Kim, Yoon-Kyoung Cho, Tsvi Tlusty, Steve Granick*, "Response to Comment on "Boosted molecular mobility during common chemical reactions", **Science**, 371(6526) eabe8678 (2021) *Technical Comments*

40. Mamata Karmacharya[§], Sumit Kumar[§], Oleksandra Gulenko, and Yoon-Kyoung Cho*, "Advances in Facemasks during the COVID-19 Pandemic Era", **ACS Appl. Bio. Mater**. On-line published (2021) *Invited Review*

41. Nitee Kumari, Sumit Kumar, Mamata Karmacharya, Sateesh Dubbu, Taewan Kwon, Varsha Singh, Keun Hwa Chae, Amit Kumar*, Yoon-Kyoung Cho*, and In Su Lee*, "Surface-Textured Mixed-Metal-Oxide Nanocrystals as Efficient Catalysts for ROS Production and Biofilm Eradication", **Nano Lett.**, 21, 1, 279–287 (2021)

42. Sumit Kumar, Mamata Karmacharya, Shalik Ram Joshi, Oleksandra Gulenko, Juhee Park, Gun-Ho Kim, and Yoon-Kyoung Cho*, "Photoactive Antiviral Face Mask with Self-Sterilization and Reusability", **Nano Lett.**, 21, 337−343 (2021)

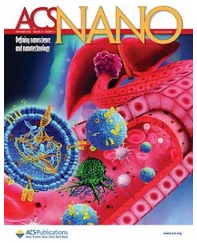
43. Sun-Min Yu, Bo Li, Francois Amblard, Steve Granick, Yoon-Kyoung Cho*, "Adaptive architecture and mechanoresponse of epithelial cells on a torus", **Biomaterials**, 265, 120420, (2021)

44. Liang Dong, Richard C. Zieren, Kengo Horie, Chi-Ju Kim, Emily Mallick, Yuezhou Jing, Mingxiao Feng, Morgan D. Kuczler, Jordan Green, Sarah R. Amend, Kenneth W.

Witwer, Theo M. de Reijke, Yoon-Kyoung Cho, Kenneth J. Pienta, Wei Xue, "Comprehensive evaluation of methods for small extracellular vesicles separation from human plasma, urine and cell culture medium", **J. Extracell Vesicles**. 10, e12044 (2020)

45. Juhee Park§, Chaeeun Lee§, Jung Seop Eom, Mi-Hyun Kim*, Yoon-Kyoung Cho*, "Detection of EGFR mutations using bronchial washing-derived extracellular vesicles in patients with non-small-cell lung carcinoma", **Cancers**, 12(10), E2822, (2020)

46. Junyoung Kim, Chaeeun Lee, Inun Kim, Jooyoung Ro, Jungmin Kim, Yoohong Min, Juhee Park, Vijaya Sunkara, Yang-Seok Park, Issac Michael, Young-Ae Kim, Hee Jin Lee, Yoon-Kyoung Cho*, "Three-dimensional Human Liver-chip Emulating Pre-metastatic Niche Formation by Breast Cancer-derived Extracellular Vesicles", **ACS Nano**, 14, 11, 14971–14988, (2020) *Journal cover, BRIC Top 5 research award*



47. Huan Wang, Myeonggon Park, Ruoyu Dong, Junyoung Kim, Yoon-Kyoung Cho, Tsvi Tlusty, Steve Granick*, "Boosted molecular mobility during common chemical reactions", **Science**, 369(6503) 537-541, (2020)

48. Sun-Min Yu§, Bo Li§, Steve Granick and Yoon-Kyoung Cho*," Mechanical Adaptations of Epithelial Cells on Various Protruded Convex Geometries", **Cells**, 9(6), 1434, (2020)

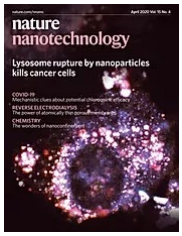
49. Issac Michael§, Dongyoung Kim†, Oleksandra Gulenko, Sumit Kumar, Saravana Kumar, Jothi Clara, Dong Yeob Ki, Juhee Park, Hyun Yong Jeong, Taek Soo Kim, Sunghoon Kwon and Yoon-Kyoung Cho*, "A fidget spinner for the point-of-care diagnosis of urinary tract infection", **Nature Biomedical Engineering**, 4, 591–600, (2020) *Journal cover, Highlighted in **Nature Biomedical Engineering** 4, 577–578 (2020), **Nature Reviews Urology** (2020)*

50. Hyera Kim§, Minji Lim§, Jin Young Kim, So-Jin Shin, Yoon-Kyoung Cho* and Chi Heum Cho*, "Circulating tumor cells enumerated by a centrifugal microfluidic device as a predictive marker for monitoring ovarian cancer treatment: A pilot study, **Diagnostics**, 10(4), 249, (2020)

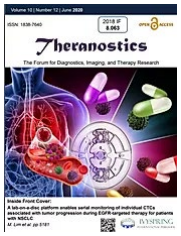
51. Amit Kumar, Nitee Kumari, Sateesh Dubbu, Sumit Kumar, Taewan Kwon, Jung Hun Koo, Jongwon Lim, Inki Kim, Yoon-Kyoung Cho, Junsuk Rho, and In Su Lee*, "Nanocatalosomes as plasmonic bilayer shells with interlayer catalytic hot Nanospaces for solar-light-induced reactions", **Angewandte Chemie International Edition**, 59(24), 9460-9469, (2020) *Journal cover*

52. Dongyoung Kim§, Hyun-Kyung Woo§, Chaeeun Lee, Yoohong Min, Sumit Kumar, Vijaya Sunkara, Hwi-Gyeong Jo, Young Joo Lee, Jisun Kim, Hong Koo Ha, and Yoon-Kyoung Cho*, "EV-Ident: identifying tumor-specific extracellular vesicles by size fractionation and single-vesicle analysis", **Analytical Chemistry**, 92, 8, 6010–6018, (2020)

53. Magdalena Borkowska, Marta Siek, Diana V. Kolygina, Yaroslav I. Sobolev, Slawomir Lach, Sumit Kumar, Yoon-Kyoung Cho, Kristiana Kandere-Grzybowska & Bartosz A. Grzybowski, "Targeted crystallization of mixed-charge nanoparticles in lysosomes induces selective death of cancer cells", **Nature Nanotechnology**, 15, 331–341, (2020) *Journal cover*



54. Minji Limi‡, Juhee Parki‡, Alarice C. Lowe, Hyoung-oh Jeong, Semin Lee, Hee Chul Park, Kyusang Lee, Gwang Ha Kim, Mi-Hyun Kim*, and Yoon-Kyoung Cho*, "A Lab-on-a-Disc platform enables serial monitoring of individual CTCs associated with tumor progression during EGFR-targeted therapy for patients with NSCLC", **Theranostics**, 10, 5181-5194, (2020) *Journal cover*



55. Liang Dong, Zhongyuan Zhang, Kimberly Smith, Morgan Kuczler, Diane Reyes, Sarah R. Amend, Yoon-Kyoung Cho, Wei Xue*, and Kenneth J. Pienta*, "The combination of size-based separation and selection-free technology provides higher circulating tumor cells detection sensitivity than either method alone in patients with metastatic prostate cancer", **BJU International**, 126, 191-201 (2020)

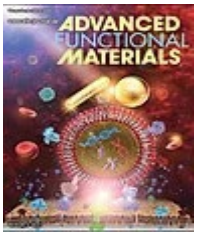
56. Chi-Ju Kim§, Dong Yeob Ki§, Juhee Park, Vijaya Sunkara, Tae-Hyeong Kim, YooHong Min, Yoon-Kyoung Cho*, Fully automated platelet isolation on a centrifugal microfluidic device for molecular diagnostics, **Lab on a Chip**, 20, 949-957 (2020)

57. Yang-Seok Park, Junyoung Kim, Jung Min Oh, Seungyoung Park, Seungse Cho, Hyunhyub Ko, Yoon-Kyoung Cho*, "Near-field electrospinning for 3D stacked nanoarchitectures with high aspect ratio", **Nano Letters**, 20(1), 441-448, (2020)

58. Dongyoung Kim, Yoohong Min, Jung Min Oh, and Yoon-Kyoung Cho*, "AI-powered transmitted light microscopy for functional analysis of live cells", **Scientific Reports** 9, 18428, (2019)

59. Monsur Jiaul Haque, Sumit Kumar, Jonathan Sabaté del Río, and Yoon-Kyoung Cho*, "Highly Sensitive Detection of Hydrazine on Poly(Tannic Acid)-Coated Disposable Carbon Electrode", **Biosensors and Bioelectronics**, 150, 11927, (2020)

60. Sumit Kumar, Jae-A Han, Issac J. Michael, Dongyeob Ki, Vijaya Sunkara, Juhee Park, Shreedhar Gautam, Hong Koo Ha, Liangfang Zhang, Yoon-Kyoung Cho*, Human platelet membrane functionalized microchips with plasmonic codes for cancer detection, **Advanced Functional Materials**, 1902669, (2019) *Journal cover*



61. Hyesong Lee, Vijaya Sunkara, Yoon-Kyoung Cho and Joonwoo Jeong*, "Effects of poly(ethylene glycol) on the wetting behavior and director configuration of lyotropic chromonic liquid crystals confined in cylinders", **Soft Matter**, 15 (30), 6127-6133, (2019)

62. Dong Hoon Baek, Gwang Ha Kim, Geun Am Song, In Sub Han, Eun Young Park, Hyun Sung Kim, Hong Jae Jo, Sang Hwa Ko, Do Youn Park, and Yoon-Kyoung Cho, "Clinical Potential of Circulating Tumor Cells in Colorectal Cancer: A Prospective Study", **Clinical and Translational Gastroenterology**, 10, 7, e00055, (2019)

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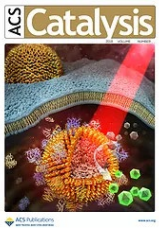

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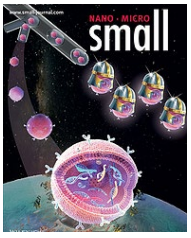

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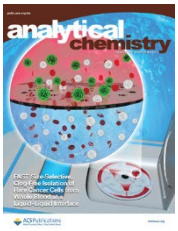

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145. Ji-yeon Yang, Yoon-Kyoung Cho, Jin-tae Kim, Sook-young kim, Young-sun Lee, "Cell lysis by heating-cooling process through endothermic reaction" US 7521246 (2009.04.21)
146. Yoon-Kyoung Cho, Kyusang Lee, Sookyoung Kim, Jin-tae Kim, "Purification method of nucleic acids using silver nanoparticles", US 7364857 (2008.04.29)
147. Youngsun Lee, Jung-Im Han, Jungjoo Whang, Mi-kyung Kim, Yoon-Kyoung Cho, Heekyun Lim, Youngah Kim, "PCR primer set for detecting hepatitis B virus, method for detecting hepatitis B using the primer set, and hepatitis B virus detection kit including the primer set ", US 7344837 (2008.3.18)
148. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Gunbae Lim, "Method and apparatus for determining zeta potential using alternating current electric field and T channel ", US 7338808 (2008.03.04)
149. Kwangwook Oh, Gunbae Lim, Youngsun Lee, Yoon-Kyoung Cho, "Apparatus for circulating carrier fluid", US 7329535 (2008.02.12)
150. Gunbae Lim, Jinsung Park, Yoon-Kyoung Cho, Sunhee Kim, "Molecular detection device and chip including MOSFET" US 7235389 (2007.06.26)
151. Gyeong-sik Ok, Yoon-Kyoung Cho, Jin-tae Kim, Kwang-wook Oh, "Optical system for analyzing multi-channel samples and multi-channel sample analyzer employing the same", US 7209237 (2007.04.24)
152. Yoon-Kyoung Cho, Sunhee Kim, Kwang-wook Oh Gunbae Lim, Dae-sung Yoon, "Method and sensor for detecting the binding of biomolecules by shear stress measurement", US 7112452 (2006.09.26)
153. Yoon-Kyoung Cho, Hee Kyun Lim, "Method for detecting hybridized nucleic acid with improved sensitivity", US 6905829 (2005. 06.14)

<u>CN (China) Issued patents: 12</u>

154. Yang Ui Lee, Yoon Kyoung Cho, Jeong Gun Lee, Do Gyoon Kim, Han Sang Kim, Jong Myeon Park, "Microfluidic device using centrifugal force and sample analyzing method using the microfluidic device", CN 102177439 (2013.12.25)
155. Dogyoon Kim, Yoon-Kyoung Cho, Jong-gun Lee, Hyun-Min Kim, Jong-Myon Park, Bumseok Lee, Yangui Lee "Containing reagent cartridge, of the microfluidic device including the same", CN 102089664 (2013.12.18)

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157. Yoon-Kyoung Cho, Joon-ho Kim, Kak Namkoong, Geun-bae Lim, Jun-hong Min, "Method and apparatus for amplifying nucleic acids" Patent No. (date): 100523211 (2009.08.05)
158. Daesung Yoon, Yoon-Kyoung Cho, Sungho Kang, Youngsun Lee, Gunbae Lim, "Micro-electrical detector on-chip", 100378451 (2008.04.02)
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160. Kwangwook Oh, Gunbae Lim, Youngsun Lee, Yoon-Kyoung Cho, "Apparatus for circulating carrier fluid", 100335609 (2007.09.05)
161. Gunbae Lim, Jinsung Park, Yoon-Kyoung Cho, Sunhee Kim, "Molecular detection chip including MOSFET, molecular detection device employing chip, and molecular detection method using the device" 1325658 (2007.07.11.)
162. Yoon-Kyoung Cho and Lim; Hee Kyun, "Method for detecting hybridized nucleic acid with improved sensitivity", 1316035 (2007.05.16)
163. Kwangwook Oh, Gunbae Lim, Youngsun Lee, Yoon-Kyoung Cho, "Apparatus for circulating carrier fluid", 1246475 (2006.03.22)
164. Yoon-Kyoung Cho, Sunhee Kim, Kwang-wook Oh Gunbae Lim, Dae-sung Yoon, "Method and sensor for detecting the binding of biomolecules by shear stress measurement", 1243979 (2006.03.01)
165. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Gunbae Lim, "Method and apparatus for determining zeta potential using alternating current electric field and T channel ", 1517704 (2004.08.04)

<u>TW (Taiwan) Issued patents: 2</u>

166. Yang Ui Lee, Yoon Kyoung Cho, Jeong Gun Lee, Do Gyoon Kim, Han Sang Kim, Jong Myeon Park, "Microfluidic device using centrifugal force and sample analyzing method using the microfluidic device", TW 1393874 (2013.04.21)
167. Jin-tae Kim, Kwangwook Oh, Yoon-Kyoung Cho, Sang-Hyun Paek, Sookyoung Kim, Jinsung Park, Kak Namkoong, "Microfluidic device comprising a microchannel disposed of a plurality of electromagnets, method for mixing asample and method for lysis cells using the same", TW 276462 (2007.03.21)

<u>JP (Japan) Issued patents: 14</u>

168. Jong-Myon Park, Jeong Gun Lee, Yoon-Kyoung Cho, "Valve unit and apparatus having the same ", JP 5539615 (2014.05.09)

169. Yoon-Kyoung Cho, Dogyoon Kim, Bumseok Lee, Jong-Myon Park, Hyunmin Kim, Yangui Lee, Jung Gun Lee, "Cartridge containing reagent, microfluidic device including the cartridge, method of manufacturing the microfluidic device, and biochemical analysis method using the microfluidic device", JP 5492886 (2014.03.07)
170. Bumseok Lee, Jeong Gun Lee, Yoon-Kyoung Cho, Jong-Myon Park, "Valve unit and fluid treating apparatus with the same", JP 5208480 (2013.03.01)
171. Bumseok Lee, Yoon-Kyoung Cho, Jeong Gun Lee, Jong Myeon Park, "Centrifugal microfluidic device for target protein detection and microfluidic system comprising the same", JP 5184007 (2013.01.25)
172. Yoon Kyoung Cho, Jeong Gun Lee, Bumseok Lee, Jong Myeon Park, Young sun Lee, "Centrifugal force based microfluidic device for serial dilution and microfluidic system comprising the same", JP 5174481 (2013.01.11)
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175. Yoon-Kyoung Cho, Joon-ho Kim, Kak Namkoong, Geun-bae Lim, Jun-hong Min, "Method and apparatus for amplifying nucleic acids ", JP 4504846 (2010.04.30)
176. Yoon-Kyoung Cho, Kyusang Lee, Sookyoung Kim, Jin-tae Kim, "Purification method of nucleic acids using silver nanoparticles", Patent No. (date): JP4482517 (2010.03.26)
177. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Jaewon Park, "Method of mixing fluids and mixing apparatus using the method", Patent No. (date): JP4342500 (2009.07.17)
178. Yoon-Kyoung Cho, Sunhee Kim, Kwang-wook Oh Gunbae Lim, Dae-sung Yoon, "Method and sensor for detecting the binding of biomolecules by shear stress measurement", JP 3790737 (2006.04.07)
179. Gunbae Lim, Jinsung Park, Yoon-Kyoung Cho, Sunhee Kim, "Molecular detection device and chip including MOSFET" JP 3883512 (2006.11.24)
180. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Gunbae Lim, "Method and apparatus for determining zeta potential using alternating current electric field and T channel ", JP 4045242 (2007.11.22.)
181. Oh, Kwang-wook, Lim, Geun-bae, Lee, Young-sun, Cho, Yoon-kyoung, "Apparatus for circulating carrier fluid", JP 4110094 (2008.04.11.)

<u>EP Issued patents: 22</u>

182. Yoon-Kyoung Cho, Sunhee Kim, Kwangwook Oh, Gunbae Lim, Daesung Yoon, "Method and sensor for detecting the binding of biomolecules by shear stress measurement", EP 1306449 (2014.12.10)
183. Jeong Gun Lee, Yoon-Kyoung Cho, Beom-seok Lee, Jong-myeon Park, "Microfluidic system and apparatus and method of controlling the same", EP 1900433 (2014.07.16)

184. Yoon Kyoung Cho, Do-gyoon Kim, Jung-nam Lee, Hee-kyun Lim, “Centrifugal force-based microfluidic device for blood chemistry analysis”, EP 2439262 (2013.10.23)
185. Lee Jungnam, Jeonggun Lee, Jongmyeon Park, Yoon Kyoung Cho, “Use of a Centrifugal Force-Based Microfluidic Device for Nucleic Acid Detection”, EP 2375256 (2013.09.11)
186. Yoon-Kyoung Cho, Jeong Gun Lee, Bumseok Lee, Jong-Myon Park, “Method for mixing at least two kinds of fluid in centrifugal micro-fluid treating substrate”, EP 1894617 (2013.08.14)
187. Dogyoon Kim, Yoon-Kyoung Cho, Jong-gun Lee, Hyun-Min Kim, Jong-Myon Park, Bumseok Lee, Yangui Lee “Cartridge containing reagent, microfluidic device including the cartridge, method of manufacturing the microfluidic device, and biochemical analysis method using the microfluidic device”, EP 2297586 (2013.06.05)
188. Yoon-Kyoung Cho, Heekuyn Lim, Jeonggun Lee, Kieun Kim, Sungho Lee, Chae-joon Lee, “Method of storing analytical reagent into microfluidic device”, EP 2080554 (2013.03.20)
189. Yoon-Kyoung Cho, Beom-seok Lee, Jeong Gun Lee, “Microfluidic apparatus having fluid container”, EP2295142 (2012.12.26)
190. Yoon-Kyoung Cho, Joon-ho Kim, Kak Namkoong, Geun-bae Lim, jun-hong Min, “Method and apparatus for amplifying nucleic acids”, EP1574586 (2012.11.28)
191. Jong-myeon Park, Jeong Gun Lee, Yoon-Kyoung Cho “Valve unit and apparatus having the same”, EP1843068 (2012.11.14)
192. Do gyoon Kim, Yangui Lee, Hansang Kim, Yoon-Kyung Cho, “Microfluidic device” EP 2165764 (2012.06.20)
193. Yoon-Kyoung Cho, Beom-seok Lee, Jeong Gun Lee, “Microfluidic apparatus having fluid container”, EP 2000210 (2012.05.23)
194. Yoon-Kyoung Cho, Jung-nam Lee, Jeong Gun Lee, Jong-myeon Park, “Centrifugal force-based microfluidic device for nucleic acid detection”, EP 2026074 (2012.05.23)
195. Yoon-Kyoung Cho, Do-gyoon Kim, Jung-nam Lee, Hee-kyun Lim, “Centrifugal force-based microfluidic device for blood chemistry analysis”, EP 2028496 (2012.01.11)
196. Beom-seok Lee, Jong-myeon Park, Jeong Gun Lee, Yoon-Kyoung Cho, “Centrifugal force-based microfluidic device for protein detection and microfluidic system including the same” EP 1897617 (2011.03.16)
197. Yoon-Kyoung Cho, Jeong Gun Lee, Jong-myeon Park, Young-sun Lee, Hyo-yeon Lee “Method of concentrating and disrupting cells or viruses” EP 1870449 (2010.04.28)
198. Yoon-Kyoung Cho, Jeong Gun Lee, Sung-young Jeong, “System and method for concentration and lysis of cells or viruses”, EP 1797956 (2010.03.10)
199. Geun-Bae Lim, Chin-Sung Park, Yoon-Kyoung Cho, Sun-Hee Kim, “Method for fabricating a molecular detection chip”, EP 1392860(2008.12.31)
200. Kim, Jin-tae, Oh, Kwang-wook, Yoon-Kyoung Cho, Peak, Sang-hyun, Kim, Sook-young, Park, C, “Microfluidic device including microchannel on which plurality of

electromagnets are disposed, and methods of mixing sample and lysing cells using the microfluidic device", EP 1658890 (2008.05.28)

201. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Jaewon Park, "Method of mixing fluids and mixing apparatus using the method", EP 1652575 (2007.12.26)
202. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Gunbae Lim, "Method and apparatus for determining zeta potential using alternating current electric field and T channel ", EP 1464956 (2007.01.17)
203. Daesung Yoon, Yoon-Kyoung Cho, Sungho Kang, Youngsun Lee, Gunbae Lim, "Micro-electrical detector on-chip", EP 1312683 (2005.12.28)

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204. Yoon-Kyoung Cho, Sangmin Shin, Inseok Kang, Gunbae Lim, "Method and apparatus for determining zeta potential using alternating current electric field and T channel ", DE 60311230 (2007.03.08)
205. Daesung Yoon, Yoon-Kyoung Cho, Sungho Kang, Youngsun Lee, Gunbae Lim, "Micro-electrical detector on-chip", DE 60208313 (2006.02.02)

INVITED PLENARY & KEYNOTE TALKS

Domestic/International Conferences

1. "Lab-on-a-Chip Systems for Personalized Medicine", 35th 2024 International Symposium on Micro-NanoMechatronics and Human Science (From Micro & Nano Scale Systems to Robotics & Mechatronics Systems), Nov. 22-24, Nagoya, Japan (Plenary Speaker)
2. "Digital detection of tumor-derived EVs in blood plasma", World Biomaterials Congress (WBC 2024), May 26-31, 2024, Daegu, Korea (Invited Speaker)
3. "Lab-on-a-disc for precision medicine", 1st International Conference on CD Microfluidics, Mexico City, Mexico 2024, April 3-5, 2024 (Plenary Speaker)
4. "Lab-on-a-disc for precision medicine", SelectBio Emerging Technologies & Paradigms for In Vitro Dx Europe, March 18-19, 2024, Rotterdam, The Netherlands (Invited Speaker)
5. "A fidget spinner for point-of-care diagnostics", Nature Conferences: Bioengineering for Global Health, November 13-15, 2023, Nashville, TN, USA (Plenary Speaker)
6. "Lab-on-a-disc for precision medicine", Microsystem analysis, May 11-12, Bangkok, Thailand (Invited Speaker)
7. "3D liver chip and extracellular vesicles for precision medicine", Seoul International Digestive Disease Symposium 2023(SIDDS 2023), April 8-9, 2023 Grand Warlkerhill Seoul, Korea (Invited Speaker)
8. "Lab-on-a-disc for precision medicine", MicroTAStic (Invited Speaker) April 7, 2023 https://www.youtube.com/@microtastic8258

9. "Lab-on-a-disc for precision medicine", 2022 **IEEE Micro and Nanotechnology in Medicine**, Dec 5-9, Hawaii, USA (Invited Speaker)
10. "Dynamics of mode transition in dendritic cell migration", Asia Pacific Center for Theoretical Physics, The 3rd workshop on stochasticity and fluctuations in small systems, November, 22-25, Pohang, Korea (Invited Speaker)
11. "3D liver-on-a-chip emulating pre-metastatic niche formation", 2022 Korea Advanced Alternative Test Conference: 3D MPS and Organoid meet together, September 2, 2022, Korea (Invited Speaker)
12. "Cellular adaptation upon physical constraints", The 15th Asia Pacific Physics Conference (APPC15), August 21-26, Korea
13. "Nanomaterials for sensitive detection of biomarkers in clinical samples", Nano Korea 2022 symposium, July 6-8, Koyang, Korea (Invited Speaker)
14. "Programmed exosome fusion for artificial organelles", GRC Extracellular Vesicles, July 24-29, Grand Summit Hotel at Sunday River, USA
15. "Centrifugal Microfluidics for Liquid Biopsy and Beyond", EMBL Conference: Microfluidics 2022, July 11-13, Heidelberg, Germany (Invited Speaker)
16. "Nanomaterials for sensitive detection of biomarkers in clinical samples", Nano Korea, July 6–8, 2022, KINTEX, Korea (Invited Speaker)
17. "Lab-on-a-disc for Precision Medicine", The 24th Korean MEMS Conference, April 6-8, 2022, Jeju, Korea ***(Keynote Speaker)***
18. "Liquid biopsy chips for personalized medicine", 2021 International Conference of the Korean Society for Molecular and Cellular Biology, Symposium on Pioneers in Cancer Research, November 3-5 2021, Jeju, Korea (Invited Speaker)
19. "Lab-on-a-disc for the detection of rare cells and extracellular biomarkers and beyond. The Centre for Research and Applications in Fluidic Technologies (CRAFT) Virtual Research Symposium, August 25-27, 2021. Toronto, Canada (***Keynote Speaker***)
20. "Lab-on-a-disc for Precision Medicine", The 23rd Annual Meeting of the China Association for Science and Technology (CAST), July 27-28, 2021. Beijing, China (***Keynote Speaker***)
21. "Three dimentional human liver chip", The liver week 2021, May 14-15, 2021, Incheon, Korea (Invited Speaker)
22. "Lab-on-a-disc for precision medicine", ***IEEE EMBS Micro and Nanotechnology in Medicine Conference,*** 8-9 December 2020 ***Virtual meeting*** (Invited Speaker, Chair)
23. "A fidget spinner for point-of-care detection of bacterial infection", 2020 International Symposium of Multi-sectoral One Health AMI Initiate for AMR Control, 19-20 November 2020, Seoul, Korea (Invited Speaker)
24. "Tumor-Specific Extracellular Vesicles Unveiled by Size-Specific Single-Vesicle Analysis" Materials Research Society 1-6 December 2019, Boston, USA (Invited Speaker)
25. "Harnessing Tiny Cell-derived Vesicles" 124th general meeting of the Korean Chemical Society 16-18 October 2019, Changwon, Korea (Invited Speaker)

26. "Lab-on-a-Chip" 4th International healthcare technology conference (CAHO TECH 2019) 27-28 September 2019, Chennai, India (Invited Speaker)
27. "Lab-on-a-disc for Liquid Biopsy" Circulating Biomarkers, Exosomes & Liquid Biopsy Asia 9-10 September 2019, Seoul, Korea (***Keynote Speaker***)
28. "Lab-on-a-disc for Liquid Biopsy", 9th Australia and New Zealand Nano Microfluidics Conference (ANZNMF2019) June 30-July 3, University of Wollongong, Australia. (***Keynote Speaker***)
29. "Lab-on-a-disc for precision medicine", **Gordon Research Conference Physics and Chemistry of Microfluidics**, June 16-21, 2019, Hongkong, China (Invited Speaker)
30. "Lab-on-a-disc for precision medicine", Lab on a Chip Symposium: From fundamentals to applications. 21 May 2019, London, UK (Invited Speaker)
31. "Lab-on-a-disc for Liquid Biopsy", Nature Conferences -In Vitro Diagnostics, March 22–23, 2019, Nanchang, China (Invited Speaker)
32. "Lab-on-a-disc for Personalized Medicine", MicroTAS 11-15 November 2018, Kaohsiung, Taiwan (Invited Speaker)
33. "Lab-on-a-disc for Liquid Biopsy", Lab on a chip - from molecular assays to organs on a chip 10 April 2018, Basel, Switzerland (Invited Speaker)
34. "Liquid Biopsy of Solid Tumors on a Spinning Disc", Select Bio Liquid Biopsies and Minimally-Invasive Diagnostics 2017, October 5-6, San Diego, USA (***Keynote Speaker***)
35. "Lab-on-a-disc for Liquid Biopsy of Solid Tumors", The 13th UST-KRIBB-KRICT Symposium", Sep. 5, Daejun, Korea (Invited Speaker)
36. "Lab-on-a-disc for Liquid Biopsy of Cancer", **RSC Tokyo International Conference 2017**, Sep. 7-8, 2017, Chiba, Japan (***Plenary Speaker***)
37. "Lab-on-a-disc for Liquid Biopsy of Solid Tumors", **ISMM 2017**, June 28-29, Hobart, Australia (***Plenary Speaker***)
38. "Centrifugal Microfluidics for Biomedical Applications", ***Nobel Symposium on Microfluidics 2017***, June 5-8, Sånga-Säby conference center, Sweden (Invited Speaker)
39. "Lab-on-a-disc for Liquid Biopsy of Solid Tumors", Biochip 2017, May 17-19, 2017, Jeju, Korea (Invited Speaker)
40. "Lab-on-a-disc for Liquid Biopsy", Select Biosciences Lab-on-a-Chip and Microfluidics World Congress 2016, Sep. 26-28, 2016, San Diego, CA, USA (***Keynote Speaker***)
41. "Robust and Ultrasensitive Point-of-Care Detection of Circulating Tumor Cells on a Spinning Disc", **Gordon Research Conference**, August 7-12, 2016 Mount Holyoke College South Hadley, MA, USA (Invited Speaker)
42. "Centrifugal Microfluidics for Point-of-care Diagnostics" **Microfluidics Congress: USA**, July 10-12, 2016, Philadelphia, PA, USA (Invited Speaker)
43. "Fully Integrated Lab-on-a-disc for Biomedical Applications", OIST Mini Symposium "Science and Technology at the Interface of Bio-Nano-systems: Challenges and Opportunities, April 25-27, 2016, Okinawa, Japan (Invited Speaker)

44. “Circulating Tumor Cell Isolation on a Spinning Disc”, Korean Gynecologic Oncology Group, March 26, 2016, Daegu, Korea (Invited Speaker)
45. “Microfluidic Lab-on-a-Chip for Bio-analytical Application”, The 1st International Conference on Pharmacy Education and Research Network of ASEAN (ASEAN PharmNET I), Dec 2-4, 2015, Bangkok, Thailand (Invited Speaker)
46. “Lab-on-a-Disc for Biomedical Applications”, The 5th AUSTRALIA KOREA INNOVATION WORKSHOP; Research to Business Innovation, Oct 15, 2015, Seoul, Korea (Invited Speaker)
47. “Centrifugal Microfluidics for In Vitro Diagnostics”, Lab-on-a-Chip, Microfluidics & Microarrays World Congress, Sep 28-30, 2015, San Diego, CA, USA (Invited Speaker)
48. “Centrifugal Microfluidics for In Vitro Diagnostics”, Biochip 2015, Feb 9-10, 2015, Gangwon, Korea (Invited Speaker)
49. "Fully integrated lab-on-a-disc for point-of-care diagnostics”, WAMNANO2014, June 23-24, 2014, Copenhagen, Denmark. (Invited Speaker)
50. "Femtomolar protein detection from whole blood on electrospun TiO2 nanofibers integrated lab-on-a-disc", **Flow14, MICRO & NANOFLUIDICS**, May 18-21, 2014, Enschede, Netherland. (Invited Speaker)
51. "Lab-on-a-disc for Point-of-Care diagnostics” APCE & KSFEA & APIA, Nov 3-6, 2013, Jeju, Korea. (Invited Speaker)
52. "Lab-on-a-disc for Analytical Chemistry” KCS-JASIS Joint Symposium: Advanced Separation Science, The Korean Chemical Society, Oct 17, 2013, Changwon, Korea. (Invited Speaker)
53. "Centrifugal Microfluidics for Point-of-Care Diagnostics” The 3rd Korea-Europe Lab on a Chip Technology Workshop, Oct 3-5, 2013, Pohang, Korea. (Invited Speaker)
54. "Centrifugal Microfluidics”, **Gordon conference Microfluidics, Physics & Chemistry of Challenges**, Advances and New Technologies for Diagnostics, June 9-14, 2013, Lucca, Italy. (Invited Speaker)
55. "Laser Assisted Indirect Heating for Molecular Detection on Microfluidic System" Annual Spring Meeting of The Korean BioChip Society, 29-30 May 2013, Seoul, Korea. (Invited Speaker)
56. "A new approach for the fabrication of nanowire-based electronic device using electrospinning method" Annual Spring Meeting of The Korean BioChip Society, 29-30 May 2013, Seoul, Korea. (Invited Speaker)
57. "Microfluidic study of lysophosphatidic acid-induced ovarian cancer chemotaxis", Annual Spring Meeting of The Korean BioChip Society, 29-30 May 2013, Seoul, Korea. (Invited Speaker)
58. “Ag nanoparticles-decorated on hierarchical rutile/anatase TiO2 nanofibers with enhanced antimicrobial property”, Korean Institute of Chemical Engineers, April 24 - 26, 2013, Gwangju, Korea. (Invited Speaker)

59. "Lab-on-a-chip for Biomedical Applications: Where Chemistry, Physics, & Biology meet Engineering", The 4th international symposium on IT convergence engineering, July 12-13, 2012, Seoul, Korea. (Invited Speaker)
60. "Fully Integrated Centrifugal Microfluidic Devices for Biomedical Applications", The 2nd Korea-EU workshop on microfluidic technology for chemical, biological & medical applications, Bubble Tech to Bio App, Lab-on-a-Chip", Oct 17-18, 2011, Saarbrucken, Germany. (Invited Speaker)
61. "Centrifugal Microfluidics" **MicroTAS 2011 Conference, October 2-6, 2011, Seattle, Washington USA** (***Plenary Speaker***).
62. "Fully Integrated Microfluidic Devices for Molecular Diagnostics ", International Symposium & Annual Meeting, Translational Research in Microbiology and Bitotechnology, June 22-24, 2011, Gyeongju, Korea. (Invited Speaker)
63. "Fully Integrated Centrifugal Immunoassay on a disc" 219th Electrochemical Society (ECS) meeting, May 1-6, 2011, Montreal, Canada. (Invited Speaker)
64. "Fully Integrated Centrifugal Microfluidics for Biomedical Application" Korean Chemical Society, Special symposium on Emerging Nanobiotechnologies in Analytical Chemistry, April 28-19, 2011, Jeju, Korea. (Invited Speaker)
65. "On-chip concentration of bacteria using nonconventional type of 3-D dielectrophoretic chips", International Workshop on Chemi-Thermo-EM Phoresis in Complex Fluids, Aug. 25 - 28, 2010, Pohang, Korea (local organizing committee).
66. "Fully Integrated Centrifugal Microfluidics for Biomedical Application", Gordon Conference: Bioanalytical Sensors, June 20-15, 2010, Colby-Sawyer College, New London, NH, USA. (Invited Speaker)
67. "Fully Integrated Centrifugal Microfluidics for Biomedical Application", APCE & APLOC 2009, Oct. 28 - 31, 2009, Shanghai, China. (Invited Speaker)
68. "Centrifugal Microfluidics for Biomedical Applications", Proceedings of KIChE Meetings, Kintex, Oct. 22-23, 2009, Ilsan, Korea. (Invited Speaker)
69. "Lab-on-a-Disc for Biomedical Applications", Proceeding of the 3rd International Symposium on Advanced Materials, February 6, 2009, Daegu, Korea. (Invited Speaker)
70. "Fully Integrated Analysis of Biomolecules on a Centrifugal Microfluidic Device", Biochip 2009, June 4 -5, 2009, Korea. (Invited Speaker)
71. " Centrifugal Microfluidics for Biomedical Application", NanoKorea 2008, Aug. 27 - 29, Kintex, Ilsan, Korea. (Invited Speaker)
72. "One step pathogen specific DNA extraction from whole blood on a centrifugal microfluidic device", Systems Integration in Biodefense" conference, Cambridge Healthtech Institute, Aug. 18 - 19, 2009, Washington DC, USA. (Invited Speaker)
73. Gordon research conference on Physics And Chemistry Of Microfluidics, August 21-26, 2005, Magdalen College Oxford, UK. (Invited Speaker)

74. “A Next Generation Molecular Diagnostic Device: GenSpector Micro PCR system.”, Invited Presentation: Keynote speaker, Polymer Processing Society (PPS) Asia/Australia meeting, August, 29 - 30, 2004, Gyung-Ju, Korea.
75. “Flow Instability in Electroosmotic Flow under Time-periodic Electric Field”, Gordon Research Conference on Physics and Chemistry of Microfluidics, August 24-29,2003, Big Sky Resort. Big Sky, MT, USA. (Invited Speaker)
76. “Development of DNA Lab-on-a-chip system using MEMS Technology” Invited Presentation, Korean Chemical Engineering Society Fall Symposium, Oct. 2000, Postech, Korea. (Invited Speaker)
77. “Surfaces & Interfaces in DNA Lab-on-a-chip Applications”, Invited Presentation, The Polymer Society of Korea fall Symposium, Oct. 2000, Chungnam University, Korea. (Invited Speaker)
78. “Dynamics of Liquid Thin Films of Molecular Dimensions”, The Polymer Society of Korea, 1999, Pusan, Korea. (Invited Speaker)

Acedemia/Industries

79. UC San Diego, Jacobs School of Engineering Seminar, "Lab-on-a-Chip Systems for Precision Medicine", UC San Diego, USA (2024.08.02)
80. College of Medicineg, Dankook University (2023.08.24)
81. Department of Mechanical Engineering, Seoul National University (2023.04.24)
82. Department of Bioengineering, Hanyang University (2023.04.19)
83. Daejoo Electronic Materials Co. LTD (2022.08.09)
84. National Cancer Center (2022.08.08)
85. Yonsei University Hospital (2022.06.24)
86. AMDI Autonomous Medical Devices Incorporated, USA (2022.05.25)
87. IBS Center for Cognition and Sociality, Korea (2022.03.16)
88. IQB Colloquium, Sungkyunkwan University (2022.03.11)
89. Spine and Stroke Grand Conference, Pohang Stroke and Spine Hospital, Pohang (2021.08.27)
90. Pohang Innovation Salon, Korea (2021.06.10)
91. National Cancer Institute, Korea (2021.05.04)
92. Biomedical Engineering, Korea University, Korea (2020.11.12)
93. School of Future Convergence, Hallym University, Korea (2020.03.26)
94. Electrical Engineering and Computer Science, MIT, USA (2019.12.05)
95. Institute of Physical Chemistry, Polish Academy of Science, Warsaw, Poland (2019.11.01)
96. Korea Brain Research Institute (2019.09.19)
97. Swiss-Korean Life Science Symposium, Novartis Campus, Basel, Switzerland (2019.08.28)
98. University of Basel and University Hospital Basel, Switzerland (2019.03.26)
99. Department of Life Science, Chung-Ang University (2018.05.30)

100. National Cancer Center (2017.11.22)
101. Electronics and Telecommunications Research Institute (2017.07.06)
102. Asan Hospital (2017.06.03)
103. Kore Institute of Radiological & Medical Sciences (2016.11.11)
104. Materials Science & Engineering, Warsaw University of Technology, Poland (2016.06.14),
105. College of Pharmacy, Ewha Womans University (2016.05.19),
106. Keimyung University Dongsan Medical Center (2016.01.08)
107. GreenCross Medical Science Corp (2015.10.19),
108. Chemistry, POSTECH (2014.12.12),
109. Univ. of Illinois at Urbana-Champaign, USA (2014.11.03)
110. Northwestern University, USA (2014.10.30),
111. Nanosystems Engineering, Inje University (2013.12.16)
112. Biomedical Engineering, UNC/NCSU BME Coulter Seminar Series (2013.11.22)
113. Life Science, POSTECH (2013.5.15)
114. Microfluidics and biological engineering group, IMTEK, Freiburg, Germany, (2012.11.15)
115. Biomedical Engineering, University of North Carolina, Chapel Hill (2012.08.02)
116. Biomedical device research group, KMAC (2012, 07.26)
117. Department of Nano Manufacturing Technology, Korea Institute of Machinery & Materials (KIMM) (2012.04.13)
118. Department of Fine Chemical Engineering, Choong-Nam National University, (2011.04.11)
119. KIMS (Korea Institute of Materials Science), (2011.03.23)
120. Department of Bionano Engineering, Hanyang University, (2010.09.29)
121. Department of Physics, Pusan National University, (2010.04.30)
122. Department of Bionano Technology, Kyungwon University, 2009 fall department colloquium series, (2009.12.10)
123. Department of Chemical Engineering, POSTECH, 2009 fall department colloquium series (2009.11.9.)
124. Department of Mechanical Engineering, Young-Nam University, WCU program invited seminar series, (2009.10.5)
125. Department of Materials Science & Engineering, KAIST, Daejeon, Korea. (2009.09.08)
126. Department of Biosystems, KAIST, Daejeon, Korea. (2007.01.15)
127. Department of Physics, EWHA Woman's University, Seoul, Korea. (2006.04.26)
128. Department of Chemical Engineering, Kyungpook University, Daegu, Korea (2005.05.03.)
129. National Cancer Center, Ilsan, Korea (2005.02.23)
130. Samsung Electronics, Suwon, Korea, (2004.11.)
131. SungKyunKwan University, Suwon, Korea. (2002.11.)

132. Department of Chemical Engineering, POSTECH, Pohang, Korea (2001.11.23.)
133. Yonsei University, Seoul, Korea. (2001.11.14.)
134. Young-Nam University, Daegu, Korea. (2001.4.18.)

THESIS DISSERTATIONS

MS.

1. Jiwoon Park, "Fully Integrated Lab-on-a-Disc for Multiplex Immunoassay from Whole Saliva", 2011.05.31
2. Ada Lee, "Size-selective Circulating Tumor Cell Isolation on a Centrifugal Microfluidic Device", 2014.02.04
3. JaRyeong Han, "Electrochemical Sensors for Flow-Enhanced Immunoassays and Flow Monitoring of Porous Materials", 2014.06.16
4. Hye-Yeon Ha, "E.coli Motility in a Confined Channel with Asymmetric Surface Properties", 2016.02.22
5. Dong Yeob Ki, "Size based platelet isolation on a centrifugal microfluidic device", 2017.12.06
6. Na Kyung Jung, "Ultrasensitive Quantification of Single Extracellular Vesicles in Unprocessed Plasma using Droplet Digital Nanoplasmonic assay", 2023.06.14

Ph.D.

1. Tae-Hyeong Kim, "Fully Integrated Lab-on-a-Disc for Point-of-Care Diagnostics", 2014.06.17
2. Changsik Shin, "The intrinsic role of CD8a- dendritic cell subset in the initiation of effective humoral immunity", 2016.02.22
3. Yang-Seok Park, "Near-Field Electrospinning for precise Control of Nano-architectures", 2019. 05.29
4. Chi-Ju Kim, "Fully Automated lab-on-a-disc for isolation of circulating biomarkers in blood", 2019.06.12
5. Yubin Kim, "Lab-on-a-discs for quantification of microalgal lipids and natural antioxidants of beverage samples", 2019. 06.14
6. Issac.J. Michael, "Centrifugal microfluidics for extreme point of care testing of infectious diseases", 2019.12.10
7. Hyun-Kyung Woo, "Extracellular vesicle isolation and analysis using centrifugal microfluidic system for liquid biopsy", 2019.12.11
8. Minji Lim, "Circulation tumor cells enrichment and single cell analysis", 2020.06. 16
9. Sun-Min Yu, "Substrate Curvature Effects on Adaptive Architecture and Mechano-response of Epithelia", 2020.06. 17
10. Junyoung Kim, "Microfluidic devices for eavesdrop on cell-to-cell communication in tumor microenvironment", 2020.06. 18
11. Yongjun Choi, "Adaptive random motility of dendritic cells ", 2022.02.17

12. Mamata Karmacharya, "Surface-tuned Nanomaterials: A Path Toward Effective Antimicrobial Strategies", 2023.06.30
13. Chaeeun Lee, "Extracellular Vesicle Analysis and Engineering for Personalized Medicine", 2024.03.12

CONFERENCE PRESENTATIONS

1. **Elizabeth Maria Clarissa**, Sumit Kumar and Yoon-Kyoung Cho*, "Monitoring of Actionable Mutations via Digital Profiling of Blood Extracellular Vesicles from Patients with Non-Small Cell Lung Cancer", Miniaturized Systems for Chemistry and Life Sciences (μTAS 2024), 13-17 October 2023, Montreal, Canada (***CBMS Student/ Young Researcher Grant)***
2. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "Giant Unilamellar Charged Vesicles fro Recognizing the Bacterial Surface", 2024 Spring Meeting of the Korean Biochip Society, 22-24 May, 2024, Gyeongju, Korea
3. **Elizabeth Maria Clarissa**, Sumit Kumar and Yoon-Kyoung Cho*, "Interrogating Single Extracellular Vesicles via Droplet-Based Fusion with Liposomes" ,2024 Spring Meeting of the Korean Biochip Society,22-24 May 2024, Gyeongju, Korea (***Outstanding poster award)***
4. **Jungmin Kim**, Vijaya Sunkara, and Yoon-Kyoung Cho* "Natural polyphenol-mediated assembly of cell membrane on nanoparticles", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea *(Outstanding poster award)***
5. **Jooyoung Ro**, Yoon-Kyoung Cho* "Microwell device for isolation of single polyaneuploid cancer cells (PACCs) and originated EV profiling", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea**
6. **Joon-Ho Kwon**, C. Justin Lee* and Yoon-Kyoung Cho* "Discovering the biomarkers of astrocyte-derived extracellular vesicles induced by glutamate in glioblastoma", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea *(Outstanding poster award)***
7. **Jiyun Han**, Jonathan Sabaté del Río, and Yoon-Kyoung Cho* "Fiber Optic Raman platform for detection of cancerous exosomes from plasma samples using SERS", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea**
8. **Hyunmin Choi**, Jonathan Sabaté del Río, and Yoon-Kyoung Cho* "Cancer Biomarker Profiling: Analysis of Colorectal Cancer-Related Proteins in Plasma Extracellular Vesicles", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea**
9. **Elizabeth Maria Clarissa**, Sumit Kumar and Yoon-Kyoung Cho*, "Single Extracellular Vesicles Interrogation Through Droplet-Based Fusion with Liposomes", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea**
10. **Chaeeun Lee**, Sumit Kumar, Juhee Park, Elizabeth Maria, Yongjun Choi and Yoon-Kyoung Cho "Extracellular Vesicle Breathing and Enhanced Cargo Loading for Drug

Delivery", **2023 Annual Fall Meeting of the Korean Biochip Society,15-17 November 2023, Jeju, Korea**

11. Elizabeth Maria Clarissa, Sumit Kumar, and Yoon-Kyoung Cho*, "Digital Detection of EGFR Mutations in Lung Cancer Using Tumor-Derived EVs" **MOVE (Mobility for Vesicles Research in Europe) meeting, October 24-27, Malaga, Spain (*oral*)**
12. **Jooyoung Ro**, Junyoung Kim and Yoon-Kyoung Cho*, "Open microfluidic platform for co-culturing tumor spheroids and endothelial cells in a 3D environment", **Miniaturized Systems for Chemistry and Life Sciences (μTAS 2023), 15-19 October 2023, Katowice, Poland *(oral)***
13. **Elizabeth Maria Clarissa**, Sumit Kumar and Yoon-Kyoung Cho*, "Digital Detection of Tumor-Derived Extracellular Vesicles via Charge-Induced Fusion", **Miniaturized Systems for Chemistry and Life Sciences (μTAS 2023), 15-19 October 2023, Katowice, Poland *(oral)***
14. **Mamata Karmacharya**, Sumit Kumar and Yoon-KyoungCho*,"Human Platelet Membrane Reactor for Removal of Pathogenic Biofilms on Natural Teeth", **Miniaturized Systems for Chemistry and Life Sciences (μTAS 2023), 15-19 October 2023, Katowice, Poland**
15. **Elizabeth Maria Clarissa**, Sumit Kumar and Yoon-Kyoung Cho*, "Droplet-Based Extracellular Vesicles Detection through Fusion with Liposomes" **2023 Annual Spring Meeting of the Korean Biochip Society, May 31-June 2, Yeosu, Korea**
16. **Jiyun Han**, Trinh Thi Ngoc Diep, and Yoon-Kyoung Cho*, "Rapid and Simple Live/Dead Bacteria Distinction Using PMA Molecule and Leuco Crystal Violet for Naked Eye Detection", **2023 Annual Spring Meeting of the Korean Biochip Society, May 31-June 2, Yeosu, Korea**
17. **Jungmin Kim**, and Yoon-Kyoung Cho*, "Cell Membrane coating on gold nanoparticles Modified with Tannic acid complex", **2023 Annual Spring Meeting of the Korean Biochip Society, May 31-June 2, Yeosu, Korea**
18. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "PLATELET NANOREACTOR FOR COMBATING ORAL BIOFILM", **2023 Annual Spring Meeting of the Korean Biochip Society, May 31-June 2, Yeosu, Korea**
19. **Jooyoung Ro**, Junyoung Kim, and Yoon-Kyoung Cho*, "Open microfluidic device for 3D co-culture of tumor spheroids and study of cellular interaction", **2023 Annual Spring Meeting of the Korean Biochip Society, May 31-June 2, Yeosu, Korea**
20. **Elizabeth Maria Clarissa**, Sumit Kumar, and Yoon-Kyoung Cho, "EXTRACELLULAR VESICLES-LIPOSOME FUSION IN DROPLET REACTORS FOR CANCER DETECTION", **2022 IEEE Micro and Nanotechnology in Medicine, Dec 5-9, Hawaii, USA**
21. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "PLATELET MEMBRANE-ENCLOSED BIOORTHOGONAL CATALYSIS FOR COMBATING

BACTERIAL BIOFILM INFECTIONS", **2022 IEEE Micro and Nanotechnology in Medicine, Dec 5-9, Hawaii, USA**

22. **Chaeeun Lee**, Sumit Kumar, Juhee Park and Yoon-Kyoung Cho*, "Drug Loading into Extracellular Vesicles By Controlling Tonicity For Anti-cancer Therapy", **2022 IEEE Micro and Nanotechnology in Medicine, Dec 5-9, Hawaii, USA**
23. **Soohwa Jang**, Munkyeong Min, Hanna Kim, Hyejin Choi, Juyoung Choi, Hee Chul Park, Juhee Park, Vijaya Sunkara, Kyusang Lee, Yoon-Kyoung Cho, Beom Seok Lee, "Performance Evaluation of ExoDisc and ExoPRISM as an Extracellular Vesicle (EV) Isolation Method using Reference EVs", **Korean Society for Extracellular Vesicles (KSEV) 2022 Annual Meeting, Nov 20-22, Jeju, Korea**
24. **Hanna Kim**, Munkyeong Min, Hyejin Choi, Hee Chul Park, Juyoung Choi, Soo Hwa Jang, Juhee Park, Vijaya Sunkara, Kyusang Lee, Yoon-Kyoung Cho, Beom Seok Lee, "A Novel Extracellular Vesicle Isolation Method, ExoPRISM, and Performance Evaluations with Existing Methods", **Korean Society for Extracellular Vesicles (KSEV) 2022 Annual Meeting, Nov 20-22, Jeju, Korea**
25. **Munkyeong Min**, Hanna Kim, Hyejin Choi, Hee Chul Park, Juyoung Choi, Soohwa Jang, Juhee Park, Vijaya Sunkara, Yoon-Kyoung Cho, Beom Seok Lee, Kyusang Lee, "The Selection of Preparation Methods Influences The Make Up of Extracellular Vesicles; Blood EVs in Plasma: Comparison of Methods", **Korean Society for Extracellular Vesicles(KSEV) 2022 Annual Meeting, Nov 20-22, Jeju, Korea**
26. **Juhee Park**, Hong Koo Ha, and Yoon-Kyoung Cho*, "Analysis of Urinary Extracellular Vesicles of Prostate Cancer Patients Using Exodisc", **Korean Society for Extracellular Vesicles(KSEV) 2022 Annual Meeting, Nov 20-22, Jeju, Korea**
27. **Vijaya Sunkara**, Juhee Park, Yoon-Kyoung Cho*, "ExoPRISM: A Rapid, Scalable Method for Extracellular Vesicle Separation", **ISEVxTech EV technology & methods Summit, Nov 16-18, 2022. Honolulu, Hawaii**
28. **Juhee Park**, Hyun-Kyung Woo, Vijaya Sunkara and Yoon-Kyoung Cho*, "ExoDisc: A Centrifugal Tangential Flow Filtration for Extracellular Vesicle Separation from Clinical Samples of Cancer Patients", **ISEVxTech EV technology & methods Summit, Nov 16-18, Honolulu, Hawaii**
29. **Mamata Karmacharya**, Sumit Kumar, Yoon-Kyoung Cho*, "Nanoengineered Platelet Reactor for Bioorthogonal Chemistry", **2022 Annual Fall Meeting of the Korean Biochip Society, Nov 4-5, Jeju, Korea** ***(oral, 2022 Korea Federation of Women's Science & Technology Associations·KBCS Young Researcher Excellence Award)***
30. **Nakyung Jung**, Sumit Kumar, and Yoon-Kyoung Cho*, "Prostate cancer derived EV detection and quantification with droplet compartmentalization and dark field microscopy using plasmonic resonance", **2022 Annual Fall Meeting of the Korean Biochip Society, Noc 2-4, Jeju, Korea**

31. **Jooyoung Ro**, Junyoung Kim, Yoon-Kyoung Cho*, "Open microfluidic device for 3D co-culture of tumor spheroids", **2022 Annual Fall Meeting of the Korean Biochip Society, November 2-4, Jeju, Korea**
32. **Jooyoung Ro**, Junyoung Kim, Yoon-Kyoung Cho*, "Open microfluidic device for 3D co-cultured of tumor spheroids and facile retrieval", **Miniaturized Systems for Chemistry and Life Sciences (μTAS 2022), 23-27 October 2022, Hangzhou, China and Virtual**
33. **Nakyung Jung**, Sumit Kumar, and Yoon-kyoung Cho*, Single EV quantification using plasmonic resonance inside droplet reactor.", **Miniaturized Systems for Chemistry and Life Sciences (μTAS 2022), 23-27 October 2022, Hangzhou, China and Virtual**
34. **Chaeeun Lee**, Sumit Kumar, Juhee Park and Yoon-Kyoung Cho*, "Tonicity change using Exodisc for Drug loading into Extracellular Vesicles", **Miniaturized Systems for Chemistry and Life Sciences (μTAS 2022), 23-27 October 2022, Hangzhou, China and Virtual**
35. **Mamata Karmacharya**, Sumit Kumar, Yoon-Kyoung Cho*, "Exosome Nanoreactor for Energy Generation in Living Cells", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea**
36. **Nakyung Jung**, Sumit Kumar, and Yoon-Kyoung Cho*, "Single EV quantification inside droplet with darkfield microscopy", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea**
37. **Jiyun Han**, Juhee Park, Chaeeun Lee, and Yoon-Kyoung Cho*, "Lab-on-a-DISC for Point of Care Diagnostic using CRISPR Assay", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea**
38. **Elizabeth Maria Clarissa**, Sumit Kumar, Yoon-Kyoung Cho*, "Droplet-Based Fusion of Extracellular Vesicles and Liposomes", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea**
39. **Jooyoung Ro**, Junyoung Kim, and Yoon-Kyoung Cho*, "Open microfluidic device for 3D co-culture of tumor spheroids and facile retrieval", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea** ***(Outstanding poster award)***
40. **Jungmin Kim**, Vijaya Sunkara, Yoon-Kyoung Cho*, "Platelet membrane functionalized beads to capture tumor-specific extracellular vesicles.", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea**
41. **Chaeeun Lee**, Sumit Kumar, Juhee Park, and Yoon-Kyoung Cho*, "Dox loading into extracellular vesicles (EVs) aided by Exodisc for cancer therapy ", **2022 Annual Spring Meeting of the Korean Biochip Society, May 18-20, Busan, Korea** ***(Best poster presentation award)***
42. **Juhee Park**, Hong Koo Ha, and Yoon-Kyoung Cho*, "Molecular analysis using extracellular vesicles from urine of patients with prostate cancer", **Korean Society for Extracellular Vesicles (KSEV) 2021 Annual Meeting, November 28-30, Busan, Korea** ***(Best poster presentation award)***

43. **Jooyoung Ro**, Junyoung Kim, and Yoon-Kyoung Cho*, "Extracellular vesicles introduced in three-dimensional human liver-chip to mimic breast cancer metastasis", **Korean Society for Extracellular Vesicles (KSEV) 2021 Annual Meeting, November 28-30, Busan, Korea**
44. **Chaeeun Lee**, Juhee Park Jung Seop Eom, Mi-Hyun Kim, and Yoon-Kyoung Cho*, "EGFR mutation detection of non-small cell lung cancer patients by analyzing bronchial washing derived EVs using Exodisc", **Korean Society for Extracellular Vesicles(KSEV) 2021 Annual Meeting, November 28-30, Busan, Korea** ***(Best oral presentation award)***
45. **Chaeeun Lee**, Sumit Kumar, Juhee Park, and Yoon-Kyoung Cho*, "Exodisc for Cargo loading into extracellular vesicles (EVs)", **2021 Annual Fall Meeting of the Korean Biochip Society, November 17-19, Jeju, Korea** ***(Best poster presentation award)***
46. **Jooyoung Ro**, Junyoung Kim, and Yoon-Kyoung Cho*, "Open microfluidic chips for facile retrieval of 3D co-cultured spheroids", **2021 Annual Fall Meeting of the Korean Biochip Society, November 17-19, Jeju, Korea**
47. **Jungmin Kim**, Chi-Ju Kim, Jonathan Sabatédel Río, and Yoon-Kyoung Cho*, "Fully automated point-of-care device for platelet function test developed for LTA assay on a disc", **2021 Annual Fall Meeting of the Korean Biochip Society, November 17-19, Jeju, Korea**
48. **Elizabeth Maria Clarissa**, Sumit Kumar, Chaeeun Lee and Yoon-Kyoung Cho*, "Extracellular Vesicles Fusion with Liposomes inside Droplet Reactors" **2021 Annual Fall Meeting of the Korean Biochip Society, November 17-19, Jeju, Korea** ***(Best poster presentation award)***
49. **Jonathan Sabaté del Río**, Hyun-Kyung Woo, Juhee Park, Hong Koo Ha, Jae-Ryong Kim, Yoon-Kyoung Cho*, "Nanostructured and nanoporous electrodes for sensitive analysis of biological samples", **2021 Annual Fall Meeting of the Korean Biochip Society, November 17-19, Jeju, Korea**
50. **Juhee Park**, Vijaya Sunkara, Yoon-Kyoung Cho*, " Plasma Extracellular Vesicles Seperation by Density Gradient Ultracentrifugation plus Exodisc", **2021 Annual Fall meeting of the Korean Biochip Society, November 17-19, Jeju, Korea**
51. **Vijaya Sunkara**, Juhee Park, Yoon-Kyoung Cho*, " PS-PDMS Hybrid Devices for Co-Culture Studies", **2021 Annual Fall meeting of the Korean Biochip Society, November 17-19, Jeju, Korea**
52. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "Self-sterilization and reusability of light induced antiviral facemask", **2021 annual Fall meeting of the Korean Biochip Society, November 17-19, Jeju, Korea**
53. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "Cysteamine induced plasmonic switch on Lab-on-a-disc", **October 10-14, 2021, Palm Springs, California, USA (virtual)**

54. **Chaeeun Lee**, Sumit Kumar, Juhee Park, and Yoon-Kyoung Cho*, "Microfluidic-aided Drug Loading into Extracellular Vesicles via Rapid Tonicity Change", **10-14 October, 2021, Palm Springs, California, USA (virtual)**
55. **Mamata Karmacharya**, Sumit Kumar, Chaeeun Lee, and Yoon-Kyoung Cho*, "Ultrafast-colorimetric Detection of Cysteamine Through Chemical Etching Induced Switch", **The Korean Biochip Society 2021, June16-18, 2021, Biochips in the New Normal(virtual)**
56. **Chaeeun Lee**, Sumit Kumar, Juhee Park, and Yoon-Kyoung Cho*, "Microfluidic-aided Drug Loading into Extracellular Vesicles via Rapid Tonicity Change", **The Korean Biochip Society 2021**, **June16-18, 2021, Biochips in the New Normal(virtual)**
57. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "Nanocatalyst for magnetic fields assisted biofilm eradication", **The Korean Biochip Society 2020, November 25-27, 2020, Virtual conference**
58. **Jooyoung Ro**, Junyoung Kim, and Yoon-Kyoung Cho*, "Development of a 3D Co-Culture Spheroid Model of Interaction between Breast Tumors and Endothelial cells", **The Korean Biochip Society 2020, Nov 25-27, 2020, Virtual conference**
59. **Chaeeun Lee**, Juhee Park, Jung Seop Eom, Mi-Hyun Kim, and Yoon-Kyoung Cho*, "Bronchial washing driven extracellular vesicles from non-small-cell lung carcinoma patients retain the EGFR mutation information and possibly protect DNA from the damage ", **The Korean Biochip Society 2020, Nov 25-27, 2020, Virtual conference** ***(paper award)***
60. **Chaeeun Lee**, Sumit Kumar, Juhee Park, Junyoung Kim and Yoon-Kyoung Cho*, "Drug loading into extracellular vesicle via tonicity control", **MicroTAS 2020, October 4-9, 2020, Virtual conference**
61. **Yongjun Choi** and Yoon-Kyoung Cho*, "Dendritic cell migration in 2D confinement", **MicroTAS 2020**, October 4-9, 2020, Virtual conference
62. **Jooyoung Ro**, Junyoung Kim, Chaeeun Lee, and Yoon-Kyoung Cho*, "Cancer metastasis recapitulated in three-dimensional human liver chip", **MicroTAS 2020, October 4-9, 2020, Virtual conference**
63. **Jungmin Kim,** Chi-Ju Kim, Jonathan Sabaté del Río and Yoon-Kyoung Cho*, "Fully integrated LTA assay on centrifugal microfluidic device", **MicroTAS 2020, October 4-9, 2020, Virtual conference**
64. **Mamata Karmacharya**, Sumit Kumar and Yoon-Kyoung Cho*, "Nanocatalyst for magnetic fields assisted biofilm eradication", **MicroTAS 2020, October 4-9, 2020, Virtual conference**
65. **Jungmin Kim**, Chi-Ju Kim, Jonathan Sabaté del Río and Yoon-Kyoung Cho*, "Fully integrated LTA assay on centrifugal microfluidic device", **The Korean Biochip Society 2020, July 8-10, 2020, Virtual conference** ***(paper award)***
66. **Yongjun Choi** and Yoon-Kyoung Cho*, "Dendritic cell migration under confinement", **The Korean Biochip Society 2020, July 8-10, 2020, Virtual conference**

67. **Jooyoung Ro**, Junyoung Kim, and Yoon-Kyoung Cho*, "Development of a 3D co-culture spheroid mdoel of breast tumor microenvironment for drug cytotoxicity assay", **The Korean Biochip Society 2020, July 8-10, 2020, Virtual conference**
68. **Vijaya Sunkara**, Chi-Ju Kim, Juhee Park, Hyun-Kyung Woo and Yoon-Kyoung Cho*, "Monitoring temporal tumor growth with plasma extracellular vesicles isolated using Exodisc", **APSEV &KSEV 2019, November 25-26, 2019, Jeju, Korea *(oral)***
69. **Juhee Park**, Chaeeun Lee, Mi-Hyun Kim and Yoon-Kyoung Cho*, "Analysis of extracellular vesicle-derived DNA from lung cancer patients with EGFR mutation", **APSEV &KSEV 2019**, **November 25-26, 2019, Jeju, Korea**
70. **Chi-Ju Kim**, Dong Yeob Ki, Juhee Park, Vijaya Sunkara, Yoon-Kyoung Cho*, "Fully automated lab-on-a-disc for label-free enrichment of highly pure platelets from whole blood" **MicroTAS2019**, **October 27-31, 2019, Basel, Switzerland *(oral)***
71. **Sumit Kumar**, Issac. J. Michael, and Yoon-Kyoung Cho, "Platelet membrane clocked surface for plasmonic switch on binding of cancer threats" **MicroTAS2019**, **October 27-31, 2019, Basel, Switzerland *(oral)***
72. Dongyoung Kim, Hyun-Kyung Woo, Chaeeun Lee, Yoohong Min, and **Yoon-Kyoung Cho***, "Searching cancer-specific extracellular vesicle using size fraction and single vesicle analysis", **MicroTAS2019, October 27-31, 2019, Basel, Switzerland**
73. **Junyoung Kim**, Chaeeun Lee, InUn Kim, Yoon-Kyoung Cho*, "Study the adhesion of breast cancer cells to the liver premetastatic niche by tumor-derived extracellular vesicles", **Gordon Research Conference: Physics and Chemistry of Microfluidics**, **June 16-21, Hong Kong, China**
74. **Oleksandra Gulenko**, Jung-Min Oh, Issac Michael, Yoon-Kyoung Cho* "Application of electric circuit equivalent model to FAST system in centrifugal microfluidic size-based filtration for submicron pore size ", **The Korean Biochip Society 2019**, **May 15-17,2019, Seoul, Korea**
75. **Chaeeun Lee**, Gi-Wook Lee, Junyoung Kim, Tae-Eun Park, and Yoon-Kyoung Cho* "Human BBB-on-a-chip using iPSCs derived HBMECs", **The Korean Biochip Society 2019**, **May15-17,2019, Seoul, Korea**
76. **Hyun-Kyung Woo**, Juhee Park, Ja Yoon Ku, Chan Ho Lee, Vijaya Sunkara, Hong Koo Ha, Yoon-Kyoung Cho*, "AR-V7 in urinary EVs of patients with prostate cancer", **Annual meeting of International society for extracellular vesicles 2019, April 23-28, 2019, Kyoto, Japan *(poster award)***
77. Vijaya Sunkara, Chi-Ju Kim, Juhee Park, **Hyun-Kyung Woo**, Donyoung Kim and Yoon-Kyoung Cho*, "Exodisc for fast and robust isolation of extracellular vesicles from whole-blood", **Annual meeting of International society for extracellular vesicles 2019, April 23-28, 2019, Kyoto, Japan**
78. **Hyun-Kyung Woo**, Juhee Park, Ja Yoon Ku, Chan Ho Lee, Vijaya Sunkara, Hong Koo Ha, Yoon-Kyoung Cho*, "Urinary EV for liquid biopsy: non-invasive AR-V7 detection

from patients with prostate cancer", **The 6th KSEV annual meeting, May 6-7, 2018, Seoul, Korea**

79. **Sumit kumar**, Issac Michael, Juhee Park, and Yoon-Kyoung Cho*, " Exosome: a journey from garbage bags to life-saving case", **MicroTAS2018, Nov. 11-15, 2018, Kaohsiung *(oral)***
80. **Issac.Michael**, Dongyoung Kim, Olexandra, Dong Yeob Ki, Yoon-Kyoung Cho*, "Dx-Fidget a low cost poct device for UTI detection", **MicroTAS2018, Nov. 11-15, 2018, Kaohsiung, Taiwan *(Shark tank award)***
81. **Chi-Ju Kim**, Dong Yeob Ki, Dongyoung Kim, Yoon-Kyoung Cho*, "Fully automated light transmission aggreodometry on a disc for point of care platelet function testing", **MicroTAS2018, Nov. 11-15 2018, Kaohsiung, Taiwan *(CHEMINAS poster award)***
82. **Chi-Ju Kim**, Vijaya Sunkara, Juhee Park, Hyun-Kyung Woo, Yoon-Kyoung Cho*, "Lab-on-a-disc for fully automated isolation of extracellular vesicles from whole blood of cancer patients", **MicroTAS2018, Nov. 11-15, 2018, Kaohsiung, Taiwan *(oral)***
83. **Junyoung Kim**, June Seo, Inun Kim, Juhee Park, Yang-Seok Park, Issac Michael, Yoon-Kyoung Cho*, "Screening platform for anti-cancer drug response at the single cell level in tumor microenvironment", **3rd EACR conference: Goodbye flat biology, September 09-12, Berlin, Germany**
84. **Vijaya Sunkara**, Chi-Ju Kim, Juhee Park, Hyun-Kyung Woo, Yoon-Kyoung Cho*, "Isolation of plasma extracellular vesicles on a disc", **GRC Extracellular Vesicles 2018, Aug 19-24, 2018, Newry, ME, US**
85. Sumit, **Issac Michael**, Juhee Park, Steve Granick, and Yoon-Kyoung Cho*, "Rapid isolation of exosome using tannic acid iron complex in a microfluidic droplet nano reactor", **ISMM 2018, June 19-21, 2018, Busan, Korea *(oral)***
86. **Dongyoung Kim**, Hyun-Kyung Woo, Chaeeun Lee, and Yoon-Kyoung Cho*, "Extracellular vesicle size-fraction and biomarker analysis using a centrifugal microfluidic device with artificial intelligent", **ISMM 2018, June 19-21, 2018, Busan, Korea**
87. **Yang-Seok Park**, Jung Min Oh, Yoon-Kyoung Cho*, "Fabrication of nanochannels with circular cross section and high uniformity", **ISMM 2018, June 19-21, 2018, Busan, Korea**
88. **Yongjun Choi,** Issac Michael, Yoon-Kyoung Cho*, "Under agarose migration assay with controlled confinement", **ISMM 2018, June 19-21, 2018, Busan, Korea**
89. **Chi-Ju Kim**, Dong Yeob Ki, Juhee Park, Yoon-Kyoung Cho*, "Simplified platelet isolation on a centrifugal microfluidic device for RNA analysis", **ISMM 2018**, June 19-21, 2018, Busan, Korea
90. **Chi-Ju Kim**, Vijaya Sunkara, Juhee Park, Hyun-Kyung Woo, Yoon-Kyoung Cho*, "Process optimization of extracellular vesicle isolation from plasma on a disc", **ISMM 2018, June 19-21, 2018, Busan, Korea**

91. **Chaeeun Lee**, Juhee Park, Hyun-Kyung Woo, Eunsuk Park, and Yoon-Kyoung Cho*, "Analysis of glioblastoma-derived extracellular vesicles in plasma and cerebrospinal fluid", **ISMM 2018, June 19-21, 2018, Busan, Korea**
92. **Hyun-Kyung Woo**, Vijaya Sunkara, Juhee Park, Sunmi Choi, Ja Yoon Ku, Hong Koo Ha, and Yoon-Kyoung Cho*, "Isolation and analysis of urinary extracellular vesicles on Exodisc", **ISMM 2018, June 19-21, 2018, Busan, Korea**
93. **Sun-Min Yu**, Yoon-Kyoung Cho*, "Substrate curvature affects cell architectures and polarization of epithelial cells", **ISMM 2018, June 19-21, 2018, Busan, Korea** ***(best poster presentation award)***
94. **Eujin Um**, Jung Min Oh, Juhee Park, and Yoon-Kyoung Cho*, "Designing 1D microtracks for effective quantification of cell migration", **ISMM 2018, June 19-21, 2018, Busan, Korea**
95. **Hyun-Kyung Woo**, Juhee Park, Sunmi Choi, Ja Yoon Ku, Vijaya Sunkara, Hong Koo Ha and Yoon-Kyoung Cho*, "Isolation of intact extracellular vesicles (EVs) and comparison of EVs isolated from urine and plasma", **ISEV 2018 annual meeting, May 2-6, 2018, Barcelona, Spain**
96. **Junyoung Kim**, Hacer Ezgi Karakas, Juhee Park, Jung Min Oh, Yongjun Choi, Vijaya Sunkara, Yang-Seok Park, Devrim Gozuacik*, Yoon-Kyoung Cho*, "A microfluidic chip enabling single cell analysis of tumor-stromal intercellular communication", **MicroTAS 2017, October 22-26, 2017, Georgia, USA** ***(oral, travel grant award)***
97. **Yang-Seok Park**, Jung Min Oh and Yoon-Kyoung Cho*, "High-precision fabrication of nanchannels with controlled circular cross-section", "**MicroTAS 2017**, **October 22-26, 2017, Georgia, USA**
98. **Chi-Ju Kim**, Juhee Park, Vijaya Sunkara, Tae-Hyeong Kim, and Yoon-Kyoung Cho*, "Lab-on-a-disc for fully automated isolation of cell-free DNA from whole blood of cancer patients", **MicroTAS 2017**, **October 22-26, 2017, Georgia, USA** ***(oral)***
99. **Minji Lim**, Juhee Park, Tae-Hyeong Kim, Hee Chul Park, Kyusang Lee, Mi-Hyun Kim, Do Youn Park, Gwang Ha Kim, and Yoon-Kyoung Cho*, "Mutation analysis of circulating tumor cells isolated from lung cancer patients using a Lab-on-a-Disc", **3rd Advances in circulating tumour cells 2017, October 4-7, 2017, Rhodes, Greece**
100. **Junyoung Kim**, June Seo, Juhee Park, Vijaya Sunkara, Yang-Seok Park, Issac Michael, Yoon-Kyoung Cho*, "Single-tumor cell level drug screening tool with interaction of stromal cells", **Annual autumn meeting of the KBCS 2017, November 8-10, 2017, Busan, Korea**
101. **Sunmin Yu**, Jung-Min Oh, and Yoon-Kyoung Cho*, "Epithelial cell morphology on curved surfaces", **Annual autumn meeting of the KBCS 2017, November 8-10, 2017, Busan, Korea**
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stromal cells", **Annual autumn meeting of the KBCS 2017**, November 8-10, 2017, Busan, Korea

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104. **Hyun-Kyung Woo**, Vijaya Sunkara, Juhee Park, Hong Koo Ha and Yoon-Kyoung Cho*, "Efficient detection of prostate cancer from urine-derived exosome using centrifugal microfluidic device", **Annual autumn meeting of the KBCS 2017**, **November 8-10, 2017, Busan, Korea**
105. **Issac Michael**, Junyoung Kim, Jung Min Oh, Tae-Eon Kim, Yoon-Kyoung Cho "3D Spheroid Formation on Paper Microfluidic Device", **Nobel Symposium on Microfluidics 2017**, **June 5-8, 2017, Stockholm, Sweden**
106. **Hyun-Kyung Woo**, Vijaya Sunkara, Juhee Park, Chi-Ju Kim and Yoon-Kyoung Cho*, "Exodisc for isolation and analysis of intact extracellular vesicles", **Nobel Symposium on Microfluidics 2017**, **June 5-8, 2017, Stockholm, Sweden**
107. **Vijaya Sunkara**, Hyun-Kyung Woo, Juhee Park, Tae-Hyeong Kim, Chi-Ju Kim, Hyun-Il Choi, Yoon-Keun Kim and Yoon-Kyoung Cho*, "On-disc Isolation and Analysis of Extracellular Vesicles from Biological Samples", **ISEV 2017 annual meeting, May 18-21, 2017, Toronto, Canada** ***(oral)***
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109. **Eujin Um** and Yoon-Kyoung Cho, "Microfluidic fabrication of core-shell particles of various geometries by diffusion of photoinitiator through the interface", **Annual Autumn meeting of the KBCS 2016, October 26-28, 2016, Busan, Korea**
110. **Issac J Michael**, Junyoung Kim and Yoon-Kyoung Cho*, "Paper as a substrate for hanging drop cell culture", **MicroTAS 2016, Oct9-13, 2016, Dublin, Ireland** ***(oral)***
111. **Jung Min Oh**, Tae-Hyeong Kim, Juhee Park, Minji Lim, Yoon-Kyoung Cho*,"Numerical analysis of fluid-assisted technology (FAST) in centrifugal microfluidics", **MicroTAS 2016, Oct9-13, 2016, Dublin, Ireland**
112. **Hyun-Kyung Woo**, Vijaya Sunkara, Tae-Hyeong Kim and Yoon-Kyoung Cho*, "On-site isolation and detection of urinary extracellular vesicles", **MicroTAS 2016, Oct9-13, 2016, Dublin, Ireland** ***(oral)***
113. **Hyun-Kyung Woo**, Vijaya Sunkara, Juhee Park and Yoon-Kyoung Cho*, "Multifunctional device for isolation and analysis of intact extracellular vesicles"**, GRC 2016(Extracelluar Vesicles), Aug21-26, 2016, Newry, Maine, USA**
114. Sungmok Jung, Byung Chul Kim,*, Hee Chul Park, Juhee Lee, Tae-Hyeong Kim, Juhee Park, Minji Lim, Yoon-Kyoung Cho and **Kyusang Lee***, "Molecular diagnostics by liquid

biopsy disc : cancer mutation detection by CD-PRIME™", **GRC 2016(Rare cells in circulation), Aug7-12, 2016, Mount Holyoke college, South Hadley, MA**

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119. Hyundoo Hwang, **Changsik Shin**, Juhee Park, Enoch Kang, Bongseo Choi, Jae-A Han, Yoonkyung Do, Seongho Ryu, Yoon-Kyoung Cho*, "Human breast cancer-derived soluble factors facilitate CCL19-induced chemotaxis of human dendritic cells"**, Proceeding of the 8th International Conference on Microtechnologies in medicine and biotechnology'16, April, 20-22, 2016, Seoul, Korea**
120. **Sunmin Yu**, Whaseon Lee, Yoon-Kyoung Cho*, "Cellular architecture of renal epithelial cells on concave and convex curvature", **Proceeding of the 8th International Conference on Microtechnologies in medicine and biotechnology'16, April, 20-22, 2016, Seoul, Korea**
121. **Junyoung Kim**, Hacer Ezgi Karakas, Yong-Jun Choi, Devrim Gozuacik, Yoon-Kyoung Cho*, "Kinetic study of autophagy activation in fibroblasts interacted with single tumor cell in microfluidic platform", **Annual autumn meeting of the KBCS 2015, November 18-20, 2015, Gangwon, Korea**
122. **Chi-Ju Kim**, Vijaya Sunkara and Yoon-Kyoung Cho, "A fully automated lab-on-a-disc for cell-free DNA purification from whole blood ", **Annual autumn meeting of the KBCS 2015, November 18-20, 2015, Gangwon, Korea**
123. **Sunmin Yu**, Junwon Lee, Whaseon Lee, Woonggyu Jung, Yoon-Kyoung Cho, "Morphological Characteristics of Renal Tubular Cells by Convex Curvature Variation", **Annual autumn meeting of the KBCS 2015, November 18-20, 2015, Gangwon, Korea** ***(oral, outstanding poster award)***
124. **Hyun-Kyung Woo**, Vijaya Sunkara, Yoon-Kyoung Cho, "Tetraspanin protein expression on exosomes secreted by Staphylococcus aureus", **Annual autumn meeting of the KBCS 2015, November 18-20, 2015, Gangwon, Korea**

125. **Chi-Ju Kim** and Yoon-Kyoung Cho, "Fully automated purification of cell-free DNA using large silica beads on a lab-on-a-disc system", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea**
126. **Yubin Kim**, Apichai Phonchai, Rattikan Chantiwas, Yoon-Kyoung Cho, "Lab-on-a-disc for simultaneous determination of total phenolic contents an antioxidant activity in beverage samples", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea**
127. **Junyoung Kim**+, Hacer Ezgi Karakas+, Yong-Jun Choi, Devrim Gozuacik*, Yoon-Kyoung Cho*, "Single cell analysis on the role of TGF-β1 in autophagy of tumor cell-interacted stroma fibroblasts", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea**
128. **Sunmin Yu**, Junwon Lee, Woongyu Jung, Yoon-Kyoung Cho, "Substrate curvature can induce morphological changes and functional enhancements of renal tubule cells", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea** ***(oral)***
129. **Minji Lim**, Tae-Hyeong Kim, Juhee Park, and Yoon-Kyoung Cho, "Clinical evaluation of size-based circulating tumor cell enumeration on a disc", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea** ***(oral, travel grant award)***
130. **Yang-Seok Park**, Yoon-Kyoung Cho, "Instantaneous fabrication of nanochannel array with controlled gap distance and diameter ", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea**
131. **Hyun-Kyung Woo**, Ja-Ryoung Han, Vijaya Sunkara, Yoon-Kyoung Cho, "Size-selective isolation of urinary exosome on lab-on-a-disc", **MicroTAS 2015, October 25-29, 2015, Gyeongju, Korea**
132. **Vijaya Sunkara**, Won Seok Lee, Chi Ju Kim, Juhee Park, Minji Lim, Yoon-Kyoung Cho, "TiO2 nanofibers integrated centrifugal microfluidic device for isolation of circulating tumour cells from whole blood", **4th International conference on Multifunctional, Hybrid and Nanomaterials, March 9-13, 2015, Sitges, Spain**
133. **Yubin Kim**, Su-Nam Jeong, Dong-Pyo Kim and Yoon-Kyoung Cho, "On-site Monitoring of Microalgal Lipid Contents Using a Fully Integrated Lab-on-a-disc", **MicroTAS 2014 conference, October 26-30, 2014, San Antonio, USA** ***(oral, travel grant award)***
134. **Tae-Hyeong Kim**, Juhee Park and Yoon-Kyoung Cho, "Fully Integrated Molecular Diagnostics of Pathogenic Microorganisms on a Disc", **MicroTAS 2014 conference, October 26-30, 2014, San Antonio, USA** ***(oral)***
135. **Won Seok Lee**, Yang-Seok Park and Yoon-Kyoung Cho, "Hierarchically-structured Suspended TiO2 Nanofibers as a pH Sensor", **MicroTAS 2014 conference, October 26-30, 2014, San Antonio, USA** ***(travel grant award)***
136. Ada Lee, Juhee Park, Vijaya Sunkara, Shineyonung Kim and Yoon-Kyoung Cho, "Size-selective circulating tumor cell isolation on a disc", **MicroTAS 2014 conference, October 26-30, 2014, San Antonio, USA**

137. **Hye-Yeon Ha**, Yang-Seok Park, Dong-Kyu Park, Franklin I. Uba, Steven A. Soper and Yoon-Kyoung Cho, "Digital counting of bacteria by using a microfluidic chip with built-in electrode", **MicroTAS 2014 conference, October 26-30, 2014, San Antonio, USA**
138. **Junyoung Kim**, Cédric Bathany, Hacer Ezgi, Gözüaçık, Devrim, and Yoon-Kyoung Cho, "Screening chip for autophagy of fibroblast in tumor cell environment", **MicroTAS 2014 conference, October 26-30, 2014, San Antonio, USA**
139. **Hyundoo Hwang**, Chang-Sik Shin, Juhee Park, Yoonkyoung Do, Yoon-Kyoung Cho, " quantitative analysis of CCL19-induced chemotaxis of human dendritic cells in 3D microenvironment"**, 2014 BMES Annual Meeting, October 22-25, 2014, San Antonio, USA**
140. **Sunmin Yu,** Yeonhee Kim, Juhee Park, Whaseon Lee-Kwon, Yoon-Kyoung Cho, "Study of renal function in a kidney-on-a-chip with curved geometry", **2014 BMES Annual Meeting, October 22-25, 2014, San Antonio, USA**
141. **Yeonhee Kim** and Yoon-Kyoung Cho, "Microengineered biomimetic liver sinusoids-on-a-chip for drug toxicity studies", **2014 BMES Annual Meeting, October 22-25, 2014, San Antonio, USA**
142. **Chi-Ju Kim**, Vijaya Sunkara, Juhee Park, Yoon-Kyoung Cho, "Isolation of circulating tumor cells using electrospun nanofibers integrated lab-on-a-disc", **2014 BMES Annual Meeting, October 22-25, 2014, San Antonio, USA**
143. **Vijaya Sunkara**, Won Seok Lee, Ja-Ryoung Han, Yang-Seok Park and Yoon-Kyoung Cho, "Ultrasensitive protein detection on electrospun TiO2 nanofibers integrated lab-on-a-disc", **Biosensors 2014, 27-30 May 2014, Melbourne, Australia**
144. **Dongwook Kwon**, Yang-Seok Park, Jung Kim, Yoon-Kyoung Cho, In-Kyu Park, "Bacteria lysis by mechanical force by ZnO nanoarray in microchannels ", **2014 KMEMS, April 3 - 5, 2014, Jeju, Korea**
145. **Won Seok Lee**, Yang-Seok Park and Yoon-Kyoung Cho, "Hierarchical structure of TiO2 nanofibers for enhanced antimicrobial property", **2014 KMEMS, April 3 - 5, 2014, Jeju, Korea**
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147. Hyundoo Hwang, Changsik Shin, **Juhee Park**, Yoonkyoung Do, and Yoon-Kyoung Cho,"Microfluidic Study on CCL19-induced chemotaxis of human dendritic cells interacted with breast cancer cells", **Annual Spring Meeting of The Korean Biochip Society, April 2 - 4, 2014, Jeju, Korea *(outstanding poster award)***
148. **Tae-Hyeong Kim**, Juhee Park, Chiju Kim and Yoon-Kyoung Cho,"A fully integrated molecular diagnosis for food-borne pathogen detection", **Annual Spring Meeting of The Korean Biochip Society, April 2 - 4, 2014, Jeju, Korea *(outstanding poster award)***

149. **Yang-Seok Park** and Yoon-Kyoung Cho, "Near field electrospinning for fabrication of size-controlled nanochannels", **Annual Spring Meeting of The Korean Biochip Society, April 2 - 4, 2014, Jeju, Korea**
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151. **Minji Lim**, Younglim Lee and Yoon-Kyoung Cho, "Lab-on-a-disc for white blood cell depletion for rare cell isolation", **Annual Spring Meeting of The Korean Biochip Society, April 2 - 4, 2014, Jeju, Korea**
152. **Yubin Kim** and Yoon-Kyoung Cho, "Hexane compatible lab-on-a-disc using thermal fusion bonding and laser printed carbon-dot valving", **Annual Spring Meeting of The Korean Biochip Society, April 2 - 4, 2014, Jeju, Korea**
153. **Younglim Lee** and Yoon-Kyoung Cho, "Rapid and efficient label-free circulating tumor cell isolation on a centrifugal microfluidic device," **Annual Fall Meeting of The Korean BioChip Society, November 13-14, 2013, Chuncheon, Korea**
154. **Ja-Ryoung Han**, Kameel Abi-Samra, and Cédric Bathany and Yoon-Kyoung Cho. "Real-time flow measurement in paper-based microfluidics", **MicroTAS 2013 conference, 27-31 October, Freiburg, Germany**
155. **Won Seok Lee**, Vijaya Sunkara and Yoon-Kyoung Cho "Transfer printing of electrospun nanofibers mat to device platform by using an adhesive PDMS layer", **NNT 2013, Oct 21-23, 2013, Barcelona, Spain.**
156. **Jin-Hyeon Lee**, Kyung-Hwa Shin, Juhee Park, Yoon-kyoung Cho, Shine-Young Kim. "Difference of survivin expression in mononuclear cells and circulating tumor cells in gastric cancer patients", **The Korean Society for Laboratory Medicine, October 24-25, 2013, Daegu, Korea**
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159. **Yubin Kim**, Su-Nam Jeong, Yoon-Kyoung Cho, and Dong-Pyo Kim "Lab-on-a-disc for bioenergy application", **Gordon Research Conference, Physics & Chemistry of Microfluidics, June 9 - 14, 2013, Lucca, Italy**
160. **Yang-Seok Park**, Won Seok Lee, Vijaya Sunkara, Ja Ryoung Han and Yoon-Kyoung Cho, "Nanofiber-based ultrasensitive immunoassay integrated on a centrifugal microfluidic device", **Gordon Research Conference, Physics & Chemistry of Microfluidics, June 9 - 14, 2013, Lucca, Italy**

161. **Tae-Hyeong Kim**, Juhee Park and Yoon-Kyoung Cho, "Laser assisted indirect heating for molecular detection on microfluidic system", **Annual Spring Meeting of The Korean BioChip Society, 29-30 May 2013, Seoul, Korea**
162. **Won Seok Lee**, Yang-Seok Park and Yoon-Kyoung Cho, "A new approach for the fabrication of nanowire-based electronic device using electrospinning method", **Annual Spring Meeting of The Korean BioChip Society, 29-30 May 2013, Seoul, Korea**
163. Hyundoo Hwang, Eung-Kyun Kim, **Juhee Park**, Pahn-Gill Suh and Yoon-Kyoung Cho, "Microfluidic study of lysophosphatidic acid-induced ovarian cancer chemotaxis", **Annual Spring Meeting of The Korean BioChip Society, 29-30 May 2013, Seoul, Korea**
164. **Kameel Abi-Samra**, Ja Ryoung Han and Yoon-Kyoung Cho, "Electrochemical velocimetry in paper-based microfluidics", **Advances in Microfluidic & Nanofluidics, May 24-26, 2013, Notre Dame, IN, USA**
165. **Vijaya Sunkara** and Yoon-Kyoung Cho, "Aminosilane mediated bonding for micro/nanofluics", **Advances in Microfluidic & Nanofluidics, May 24-26, 2013, Notre Dame, IN, USA**
166. **Cedric Bathany**, Yoon-Kyoung Cho and Shuich Takayama, "Toward dried biomicrofluidic apparatus using aqueous two-phase systems", **Advances in Microfluidic & Nanofluidics, May 24-26, 2013, Notre Dame, IN, USA**
167. **Won Seok Lee**, Juhee Park and Yoon-Kyoung Cho, "Ag nanoparticles-decorated on hierarchical rutile/anatase TiO2 nanofibers with enhanced antimicrobial property", **Korean Institute of Chemical Engineers, Gwangju, Korea, April 24 - 26, 2013.**
168. **Tae-Hyeong Kim**, Hyundoo Hwang, and Yoon-Kyoung Cho, "Novel method to enhance performance of paper based microfluidic device", **Biochip Conference, Oct 18-19, 2012, Korea**
169. **Chang Kyu Byun**, Toshiyuki Yaguchi, Woon Sun Choi, Taesung Kim, Yoon-Kyoung Cho and Shuichi Takayama*, "GFP Production in Biosensor E. coli is oxygen dependent and enhanced by microcolony droplet movement", **Biochip Conference, May 23-24, 2012, Korea**
170. **Tae-Hyeong Kim**, Hyundoo Hwang and Yoon-Kyoung Cho*, " A novel method to enhance the performance of paper based microfluidic device," **Nanobiotech-Montreux Conference, November 12 – 14, 2012 Montreux, Switzerland**
171. **Ada Lee**, Dong-Kyu Park, and Yoon-Kyoung Cho*, "Rapid and efficient circulating tumor cell isolation using size-based filtration on a portable centrifugal microfluidic device," **Nanobiotech-Montreux Conference, November 12 – 14, 2012 Montreux, Switzerland**
172. **Kameel Abi-Samra**, José-Manuel Rodriguez-Delgado, Ling Kong, Marc Madou, Yoon-Kyoung Cho, "A novel technique for the sequential pumping of fluids on centrifugal microfluidic platforms", **Nanobiotech-Montreux Conference, November 12 – 14, 2012 Montreux, Switzerland**

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174. **T.H. Kim,** H.D. Hwang R. Gorkin, M. Madou and Y.K. Cho*, "Enhanced blood separation rate in a narrow slanted channel on a centrifugal microfluidic platform", **Biochip Conference, Nov. 3-4, 2011, Ulsan, Korea,** ***outstanding poster award***
175. **Yubin Kim**, Juhee Park and Yoon-Kyoung Cho, "Fluorescent chemosensing of Heparin from Whole Blood in a Fully Automated Lab-on-a-Disc", **Biochip Conference, Nov. 3-4, 2011, Ulsan, Korea,** ***outstanding poster award***
176. **Chang Kyu Byun**, Hyundoo Hwang, Woon Sun Choi, Toshiyuki Yaguchi, Jiwoon Park, Dasol Kim, Robert Mitchell, Taesung Kim, Yoon-Kyoung Cho and Shuichi Takayama*, "magnetic remote control of bacteria micro-colonies allows optimization of inter-colony communication"**, Biochip Conference, Nov. 3-4, 2011, Ulsan, Korea**
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178. **Vijaya Sunkara**, Jiwoon Park, Tae-Hyeong Kim, Hyundoo Hwang, and Yoon-Kyoung Cho*, "Lab-on-a-disc for fully integrated multiplex immunoassays", **AsiaSense 2011, The 5th international Conference on Sensors, Oct. 23-26, 2011, Jeju, Korea** ***(oral)***
179. **Vijaya Sunkara,** Dong-Kyu Park and Yoon-Kyoung Cho, "Smart gluing of hard and soft materials for micro/nanofluidic devices", "Bubble tech to bio app, lab-on-a-chip". **2nd Korea-EU workshop on microfluidic technology for chemical, biological & medical applications, Oct. 17-18, 2011, Saarbrucken, Germany (*Academic Travel Award)***
180. **Jiwoon Park**, Vijaya Sunkara, Tae-Hyeong Kim, Hyundoo Hwang and Yoon-Kyoung Cho*, "A fully integrated multiplexed immunoassay on a disc", **MicroTAS 2011 Conference, October 2-6, 2011, Seattle, Washington USA**
181. **F.I. Uba**, J. Wu, S. Park, D. Moldovan, B. Novak, H. Shin, D.K. Park, Y.K. Cho, T. Kim, and S.A. Soper*, "Nanogap electrical detection of single molecules translocating through a nanochannel with transverse nanoelectrodes and funnels populated with an array of nanopillars", **MicroTAS 2011 Conference, October 2-6, 2011, Seattle, Washington USA**
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183. **Tae-Hyeong Kim**, Vijaya Sunkara, Kameel Abi-Samra, Mary Amasia, Sejin Oh, Nahui Kim, Jintae Kim, Hanshin Kim, Marc Madou* and Yoon-Kyoung Cho*, Fully integrated centrifugal microfluidic platform for electrochemical biomarker detection, **MicroTAS 2011 Conference, October 2-6, 2011, Seattle, Washington USA**

184. **Hyundoo Hwang,** Juhye Cho, Yubin Kim, Man-Sik Choi, Yoon-Kyoung Cho*, "A fully integrated centrifugal microfluidic platform for on-site simultaneous determination of five nutrients: nitrite, nitrate, ammonia, phosphate, and silicate," **National Environmental Monitoring Symposium (NEMC 2011), August 15-19, 2011, Bellevue, WA, USA, *(Academic Travel Award)***
185. **Hyundoo Hwang**, Hyeon-Ho Lee, Seung-Hoon Kim, Je-Kyun Park, Yoon-Kyoung Cho, ""Balancing the capillary-driven flow in paper using a centrifugal force"", **Gordon Research Conference, Physics & Chemistry of Microfluidics, June 26 - July 1, 2011, Waterville Valley, NH, USA**
186. **Jiwoon Park**, Tae-Hyeong Kim, Vijaya Sunkara, Hyundoo Hwang, Yoon-Kyoung Cho*, "Centrifugal microfluidics for multiplexed immunoassay from saliva", **Gordon Research Conference, Physics & Chemistry of Microfluidics, June 26 - July 1, 2011, Waterville Valley, NH, USA**
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188. **Hyundoo Hwang**, Yoon-Kyoung Cho*, "A centrifugal microfluidic device integrated with elastomeric membrane valves for control of gold nanoparticle synthesis", The International Symposium on Microchemistry and Microsystems **(ISMM) Jun. 2 -4, 2011, Seoul, Korea**
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190. **Hyundoo Hwang**, Hyangah Chon, Tae-Hyeong Kim, Yubin Kim, Jaebum Choo, Yoon-Kyoung Cho*, "Fully integrated centrifugal microfluidic platform for immunoassays of cardiac markers using surface-enhanced raman scattering", The International Symposium on Microchemistry and Microsystems **(ISMM) Jun. 2 -4, 2011, Seoul, Korea**
191. **Chang Kyu Byun**, Hyundoo Hwang, Jiwoon Park, Yoon-Kyoung Cho*, Shuichi Takayama, "Magnetic microdroplet actuation in aqueous two phase systems (ATPSs)", The International Symposium on Microchemistry and Microsystems **(ISMM) Jun. 2 -4, 2011, Seoul, Korea**
192. **Dongsik Han, Hyundoo Hwang**, Young-Jae Oh, Yoon-Kyoung Cho*, Ki-Hun Jeong and Je-Kyun Park, "Optoelectrofluidic Enhancement and in situ Measurement of Surface-Enhanced Raman Scattering", The International Symposium on Microchemistry and Microsystems **(ISMM) Jun. 2 -4, 2011, Seoul, Korea**
193. **Steven A. Soper**, Michael C. Murphy, Sunggook Park, Heungjoo Shin, Dorel Moldovan, Yoon-Kyoung Cho, Dong-Kyu Park, Rattikan Chantiwas and Franklin Uba, "Polymer-based nanofluidic systems: determining biopolymer structure using single molecule

processing", The International Symposium on Microchemistry and Microsystems **(ISMM) Jun. 2 -4, 2011, Seoul, Korea**

194. **Chang Kyu Byun**, Hyundoo Hwang, Jiwoon Park, Yoon-Kyoung Cho*, Shuichi Takayama*, "Dynamic Aqueous Two Phase System (ATPS) Micropatterning", The 6th International Conference on Microtechnologies in Medicine and Biology **(MMB), May 4-6, 2011, Lucerne, Switzerland**
195. **Sharma Swati**, Yoon-Kyoung Cho, Marc Madou*, "Photoelectrospinning for the Fabrication of Carbon Nanowires", **Nano-Bio-Tech Montreux, Nov. 15-17, 2010, Switzerland** ***RSC Award***
196. **Tae-Hyeong Kim**, Marc Madou, and Yoon-Kyoung Cho*, Novel Parameters for Rapid Blood Separation on a Centrifugal Platform, "**Nano-Bio-Tech Montreux, Nov. 15-17, 2010, Switzerland**
197. **Abi-Samra Kameel**, Tae-Hyeong Kim, Yoon-Kyoung Cho, and Marc Madou*, "Thermo-pneumatic pumping in centrifugal microfluidic platforms", , **Nano-Bio-Tech Montreux, Nov. 15-17, 2010, Switzerland**
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199. Beom-Seok Lee, **Yoon-Kyoung Cho**, Jeong Gun Lee, Jong-Myeon Park, Christopher Ko, "Microbead based suspension immunoassay in a lab -on-a-disc", **MicroTAS 2009, Nov.1 - 5, 2009**, **Jeju Korea.**
200. **Yoon-Kyoung Cho**, Jeong Gun Lee, Young-Sun Lee, Jong-Myeon Park, Beom-Seok Lee, Christopher Ko, "One step pathogen specific DNA extraction from whole blood on a centrifugal microfluidic device", ***Biosensors: Lab-on-a-chip, NSTI Nanotech 2007, May 20 - 24, 2007, Santa Clara, CA USA.***
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