

## Assoc. Prof. AYSUN ADAN

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-3747-8580

Yoksis Researcher ID: 115412

### Education Information

Doctorate, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Moleküler Biyoloji Ve Genetik, Turkey 2010 - 2015

Postgraduate, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Moleküler Biyoloji Ve Genetik, Turkey 2006 - 2010

Undergraduate, Ege University, Faculty Of Science, Biyoloji Bölümü/Temel Ve Endüstriyel Mikrobiyoloji Anabilim Dalı, Turkey 2001 - 2006

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, THERAPEUTIC POTENTIALS OF Fisetin, Hesperetin and Vitexin on Chronic Myeloid Leukemia and Acute Myeloid Leukemia Cells, İzmir Yüksek Teknoloji Enstitüsü, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2015

Postgraduate, ISOLATION AND IDENTIFICATION OF A Lipase Producing Psychrotrophic Bacteria from Soil: Cloning and Partial Characterization of its Lipase, İzmir Yüksek Teknoloji Enstitüsü, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2009

### Research Areas

Life Sciences, Molecular Biology and Genetics, Molecular Biology of Cancer, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Abdullah Gul University, Yaşam Ve Doğa Bilimleri Fakültesi, Moleküler Biyoloji Ve Genetik, 2024 - Continues

Assistant Professor, Abdullah Gul University, Yaşam Ve Doğa Bilimleri Fakültesi, Moleküler Biyoloji Ve Genetik, 2018 - 2024

Assistant Professor, Abdullah Gul University, Yaşam Ve Doğa Bilimleri Fakültesi, Moleküler Biyoloji Ve Genetik, 2015 - 2018

Research Assistant, Izmir Institute Of Technology, Fen Bilimleri Enstitüsü, Moleküler Biyoloji Ve Genetik, 2007 - 2015

## Academic and Administrative Experience

Head of Department, Abdullah Gul University, Yaşam Ve Doğa Bilimleri Fakültesi, Moleküler Biyoloji Ve Genetik, 2024 - Continues

Assistant Director of the Institute, Abdullah Gul University, Fen Bilimleri Enstitüsü, -, 2023 - Continues

## Courses

Gene Regulation, Undergraduate, 2020 - 2021

General Biology I, Undergraduate, 2020 - 2021

Cancer Biology, Undergraduate, 2020 - 2021

Undergraduate, 2017 - 2018

Kanser Biyolojisi ve Tedavisi, Postgraduate, 2016 - 2017

## Advising Theses

Adan A., The role of ceramide metabolism in apoptosis triggered by resveratrol and the therapeutic potential of resveratrol in Ph+ acute lymphoblastic leukemia, Postgraduate, O.ÖĞUZ(Student), 2020

## Designed Lessons

Adan A., Cancer Biology, Undergraduate, 2020 - 2021

Adan A., Gene Regulation, Undergraduate, 2019 - 2020

Adan A., General Biology I, Undergraduate, 2018 - 2019

Adan A., FOOD AND HEALTH, Undergraduate, 2017 - 2018

Adan A., CANCER BIOLOGY AND TREATMENT, Postgraduate, 2016 - 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Differential in vitro anti-leukemic activity of resveratrol combined with serine palmitoyltransferase inhibitor myriocin in FMS-like tyrosine kinase 3-internal tandem duplication (FLT3-ITD) carrying AML cells**  
Ersoz N. S., ADAN A.  
CYTOTECHNOLOGY, vol.74, no.2, pp.271-281, 2022 (SCI-Expanded)
- II. **Resveratrol triggers anti-proliferative and apoptotic effects in FLT3-ITD-positive acute myeloid leukemia cells via inhibiting ceramide catabolism enzymes**  
Ersoz N. S., ADAN A.  
MEDICAL ONCOLOGY, vol.39, no.3, 2022 (SCI-Expanded)
- III. **Combined effect of midostaurin and sphingosine kinase-1 inhibitor on FMS-like tyrosine kinase 3 (FLT3) wild type acute myeloid leukemia cells**  
Sahin H. N., Adan A.  
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.47, no.1, pp.49-58, 2022 (SCI-Expanded)
- IV. **Therapeutic Targeting of FLT3 in Acute Myeloid Leukemia: Current Status and Novel Approaches**  
Tetik M., Adan A.  
ONCOTARGETS AND THERAPY, vol.15, pp.1449-1478, 2022 (SCI-Expanded)
- V. **Involvement of Sphingolipid Metabolism Enzymes in Resveratrol-Mediated Cytotoxicity in Philadelphia-Positive Acute Lymphoblastic Leukemia**  
Oğuz O., Adan A.

NUTRITION AND CANCER-AN INTERNATIONAL JOURNAL, vol.74, no.7, pp.2508-2521, 2022 (SCI-Expanded)

- VI. **Computational analysis of microRNA-mediated interactions in SARS-CoV-2 infection**  
SAÇAR DEMİRCİ M. D., ADAN A.  
PEERJ, vol.8, 2020 (SCI-Expanded)
- VII. **A minimally invasive transfer method of mesenchymal stem cells to the intact periodontal ligament of rat teeth: a preliminary study**  
GÜL AMUK N., Kurt G., Kartal Yandim M., Adan A., BARAN Y.  
TURKISH JOURNAL OF BIOLOGY, vol.42, no.5, pp.382-391, 2018 (SCI-Expanded)
- VIII. **Effects of cell-mediated osteoprotegerin gene transfer and mesenchymal stem cell applications on orthodontically induced root resorption of rat teeth**  
Amuk N. G., Kurt G., Baran Y., Seyrantepe V., Yandim M. K., Adan A., Demir S. A., Kiraz Y., Sonmez M. F.  
EUROPEAN JOURNAL OF ORTHODONTICS, vol.39, no.3, pp.235-242, 2017 (SCI-Expanded)
- IX. **Intraperitoneal mesenchymal stem cell administration ameliorates allergic rhinitis in the murine model**  
IŞIK S., KARAMAN M., Adan A., KIRAY M., BAĞRIYANIK H. A., Sozmen S. C., Kozanoglu I., Karaman O., Baran Y., UZUNER N.  
EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY, vol.274, no.1, pp.197-207, 2017 (SCI-Expanded)
- X. **Flow cytometry: basic principles and applications**  
ADAN A., Alizada G., Kiraz Y., Baran Y., Nalbant A.  
CRITICAL REVIEWS IN BIOTECHNOLOGY, vol.37, no.2, pp.163-176, 2017 (SCI-Expanded)
- XI. **Major apoptotic mechanisms and genes involved in apoptosis**  
KIRAZ Y., ADAN A., Yandim M. K., BARAN Y.  
TUMOR BIOLOGY, vol.37, no.7, pp.8471-8486, 2016 (SCI-Expanded)
- XII. **Fisetin and hesperetin induced apoptosis and cell cycle arrest in chronic myeloid leukemia cells accompanied by modulation of cellular signaling**  
ADAN A., BARAN Y.  
TUMOR BIOLOGY, vol.37, no.5, pp.5781-5795, 2016 (SCI-Expanded)
- XIII. **Molecular mechanisms of drug resistance and its reversal in cancer**  
Kartal-Yandim M., Adan-Gokbulut A., Baran Y.  
CRITICAL REVIEWS IN BIOTECHNOLOGY, vol.36, no.4, pp.716-745, 2016 (SCI-Expanded)
- XIV. **Cell Proliferation and Cytotoxicity Assays**  
ADAN A., KIRAZ Y., BARAN Y.  
CURRENT PHARMACEUTICAL BIOTECHNOLOGY, vol.17, no.14, pp.1213-1221, 2016 (SCI-Expanded)
- XV. **The pleiotropic effects of fisetin and hesperetin on human acute promyelocytic leukemia cells are mediated through apoptosis, cell cycle arrest, and alterations in signaling networks**  
ADAN A., BARAN Y.  
TUMOR BIOLOGY, vol.36, no.11, pp.8973-8984, 2015 (SCI-Expanded)
- XVI. **Nilotinib Does Not Alter the Secretory Functions of Carotid Artery Endothelial Cells in a Prothrombotic or Antithrombotic Fashion**  
Katgi A., Sevindik O. G., Gokbulut A., Ozsan G. H., Yuksel F., Solmaz S. M., Alacacioglu I., Ozcan M. A., Demirkan F., Baran Y., et al.  
CLINICAL AND APPLIED THROMBOSIS-HEMOSTASIS, vol.21, no.7, pp.678-683, 2015 (SCI-Expanded)
- XVII. **Revealing genome-wide mRNA and microRNA expression patterns in leukemic cells highlighted "hsa-miR-2278" as a tumor suppressor for regain of chemotherapeutic imatinib response due to targeting STAT5A**  
Kaymaz B. T., Gunel N. S., Ceyhan M., Cetintas V. B., Ozel B., Yandim M. K., Kipcak S., Aktan C., Gokbulut A., Baran Y., et al.  
TUMOR BIOLOGY, vol.36, no.10, pp.7915-7927, 2015 (SCI-Expanded)
- XVIII. **A Novel Natural Product, KL-21, Inhibits Proliferation and Induces Apoptosis in Chronic Lymphocytic Leukemia Cells**  
Gokbulut A., Yasar M., Baran Y.

TURKISH JOURNAL OF HEMATOLOGY, vol.32, no.2, pp.118-126, 2015 (SCI-Expanded)

- XIX. Bioactive, functional and edible film-forming properties of isolated hazelnut (*Corylus avellana* L.) meal proteins**  
Aydemir L. Y., Gokbulut A., Baran Y., Yemencioğlu A.  
FOOD HYDROCOLLOIDS, vol.36, pp.130-142, 2014 (SCI-Expanded)
- XX. Therapeutic Potential of Apigenin, a Plant Flavonoid, for Imatinib-Sensitive and Resistant Chronic Myeloid Leukemia Cells**  
Solmaz S., Gokbulut A., Cincin B., Ozdogu H., Boga C., Cakmakoglu B., Kozanoglu I., Baran Y.  
NUTRITION AND CANCER-AN INTERNATIONAL JOURNAL, vol.66, no.4, pp.599-612, 2014 (SCI-Expanded)
- XXI. STAT pathway in the regulation of zoledronic acid-induced apoptosis in chronic myeloid leukemia cells**  
Kiper H. D., Kaymaz B. T., Gokbulut A., Selvi N., Avci C. B., KOSOVA B., Iskender G., Yandim M. K., GÜNDÜZ C., ŞAHİN F., et al.  
BIOMEDICINE & PHARMACOTHERAPY, vol.67, no.6, pp.527-532, 2013 (SCI-Expanded)
- XXII. Resveratrol and quercetin-induced apoptosis of human 232B4 chronic lymphocytic leukemia cells by activation of caspase-3 and cell cycle arrest**  
Gokbulut A., Apohan E., Baran Y.  
HEMATOLOGY, vol.18, no.3, pp.144-150, 2013 (SCI-Expanded)
- XXIII. Purification and biochemical characterization of an extracellular lipase from psychrotolerant *Pseudomonas fluorescens* KE38**  
Adan Gokbulut A., Arslanoglu A.  
TURKISH JOURNAL OF BIOLOGY, vol.37, no.5, pp.538-546, 2013 (SCI-Expanded)
- XXIV. Enalapril-induced Apoptosis of Acute Promyelocytic Leukaemia Cells Involves STAT5A**  
Purclutepe O., Iskender G., Kiper H. D., Tezcanli B., Selvi N., Avci C. B., KOSOVA B., Gokbulut A., ŞAHİN F., Baran Y., et al.  
ANTICANCER RESEARCH, vol.32, no.7, pp.2885-2893, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. Glucosylceramide Synthase Is a Novel Biomarker of Midostaurin-Induced Cytotoxicity in Non-Mutant FLT3 Positive Acute Myeloid Leukemia Cells**  
Şahin H. N., Adan A.  
EXPERIMED, vol.11, no.3, pp.149-155, 2021 (Peer-Reviewed Journal)
- II. Cytotoxic Effects of Resveratrol and Its Combinations with Ceramide Metabolism Inhibitors on FLT3 Positive Acute Myeloid Leukemia**  
Ersöz N. Ş., Adan A.  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.13, no.3, pp.1205-1216, 2020 (Peer-Reviewed Journal)
- III. Suppression of STAT5A and STAT5B chronic myeloid leukemia cells via siRNA and antisense-oligonucleotide applications with the induction of apoptosis**  
KAYMAZ B., Selvi N., Gokbulut A., Aktan C., GÜNDÜZ C., SAYDAM G., ŞAHİN F., BOZOK ÇETİNTAŞ V., Baran Y., KOSOVA B.  
AMERICAN JOURNAL OF BLOOD RESEARCH, vol.3, no.1, pp.58-70, 2013 (ESCI)

## Books & Book Chapters

- I. DNA Methylation Alterations in Acute Myeloid Leukemia: Therapeutic Potential**  
Adan A.  
in: Interdisciplinary Cancer Research, Nima Rezaei, Editor, Springer Nature, Zürich, pp.1-28, 2023
- II. Pleiotropic Molecular Effects of Dietary Polyphenols Resveratrol and Apigenin in Leukemia**

Adan A., Oğuz O.

in: Polyphenols in Human Health and Disease, Ronald Ross Watson, Victor R. Preedy, Sherma Zibadi, Editor, AP, London, London, pp.152-162, 2018

**III. Kanserde Sfingolipidler**

Adan A.

in: Kanser Moleküler Biyolojisi, Yusuf Baran, Editor, Kısayol yayıncılık, Ankara, pp.260-276, 2018

**IV. Meme Kanserine Moleküler Biyolojik Yaklaşım**

Adan A.

in: Meme Kanserine Moleküler ve Genetik Yaklaşım, Ayfer Haydaroğlu, Editor, Ege Üniversitesi, İzmir, pp.193-224, 2011

## **Refereed Congress / Symposium Publications in Proceedings**

- I. Resveratrol Induced Growth Inhibition in Human Ph Acute Lymphoblastic Leukemia By Modulation of Sphingolipid Mechanism**  
ADAN A.  
13th World Congress on Polyphenol Applications, 30 September - 01 October 2019
- II. Lösemi Hücrelerinde STAT3'ün Hedeflenmesi Metabolik Potansiyel Değişimi ile Glikolizi Modüle Eder**  
TEZCANLI KAYMAZ B., ABBASZADE Z., ÖZATEŞ AY N. P., GÜMÜŞ N., ADAN A., BARAN Y., SELVİ GÜNEL N., BİRAY AVCI Ç.  
VI. ULUSLARARASI KATILIMLIDENEYSSEL HEMATOLOJİ KONGRESİ, 19 - 21 April 2019
- III. Effects of cell-mediated osteoprotegerin gene transfer and mesenchymal stem cell applications on orthodontically induced root resorption of rat teeth**  
GÜL AMUK N., KURT G., BARAN Y., SEYRANTEPE V., KARTAL YANDIM M., ADAN A., DEMİR AKYILDIZ S., KİRAZ Y., SÖNMEZ M. F.  
94th Congress of the European Orthodontic Society, Edinburgh, Saint Helena, 17 - 21 June 2018, vol.40, pp.455
- IV. Synergistic Cytotoxic Effects of Resveratrol in Combination with Ceramide Metabolizing Enzymes in Ph Acute Lymphoblastic Leukemia**  
OĞUZ O., ADAN A.  
The 2nd International Conference on Natural Products for Cancer Prevention and Therapy, 8 November - 11 December 2017, vol.1, pp.984
- V. Fisetin and hesperetin induced apoptosis and cell cycle arrest in chronic myeloid leukemia cells accompanied by modulation of cellular signaling**  
ADAN A., BARAN Y.  
11th World Congress on Polyphenols Applications: Vienna Polyphenols 2017, 20 - 21 June 2017
- VI. Multidrug resistance mechanisms in hematological malignancies**  
KİRAZ Y., ADAN A., BARAN Y.  
FRONTIERS IN SCIENTIFIC RESEARCH-TWAS, Bangalore, India, 21 - 22 December 2015, pp.1
- VII. THE MICROARRAY GENE PROFILING ANALYSIS OF ACUTE PROMYELOCYTIC LEUKEMIA CELLS IN RESPONSE TO Fisetin AND HESPERETIN**  
ADAN A., BARAN Y.  
20TH Congress of THE European Hematology Association, Viyana, Austria, 11 June - 14 October 2015, pp.651
- VIII. Multidrug Resistance Mechanisms in Leukemias**  
BARAN Y., KİRAZ Y., ADAN A.  
Future of Biomedicine Conference 2015, Vladivostok, Russia, 2 - 07 September 2015, pp.53
- IX. Therapeutic potential of fisetin and identification of its mechanisms in action in chronic myeloid leukemia and acute promyelocytic leukemia cells**  
ADAN A., BARAN Y.  
40TH FEBS CONGRESS, Berlin, Germany, 4 - 09 July 2015, pp.241

- X. **SPHINGOSINE-1-PHOSPHATE RECEPTOR 2/GQ/PHOSPHOLIPASE C AXIS IS A NOVEL MECHANISM TO OVERCOME NILOTINIB RESISTANCE IN T315I MUTATION EXPRESSING 32DCL3 MURINE CELLS**  
ADAN A., OGRET MEN B., BARAN Y.  
20TH Congress of the European Hematology Association, Viyana, Austria, 11 - 14 June 2015, pp.428
- XI. **A GENOME-WIDE ANALYSES OF DIFFERENTIALLY EXPRESSED GENES AND RELATED NETWORKS AFFECTED BY FİSETİN AND HESPERETİN IN CHRONIC MYELOİD LEUKEMIA CELLS**  
ADAN A., BARAN Y.  
20th Congress of the European Hematology Association, Viyana, Austria, 11 - 14 June 2015, pp.686
- XII. **Revealing Genome Wide mRNA and miRNA Expression Profiles in Parental and Imatinib Resistant Chronic Myeloid Leukemia Cells**  
TEZCANLI KAYMAZ B., SELVİ GÜNEL N., CEYHAN M., BOZOK ÇETİNTAŞ V., KARTAL YANDIM M., ÖZEL B., KIPÇAK S., AKTAN Ç., ADAN A., BARAN Y., et al.  
V. INTERNATIONAL CONGRESS OF MOLECULAR MEDICINE, İzmir, Turkey, 20 - 22 May 2015, pp.176
- XIII. **Targeting STAT3 has therapeutic potential to regain nilotinib response in parental and resistant chronic myeloid leukemia cells**  
TEZCANLI KAYMAZ B., SELVİ GÜNEL N., BOZOK ÇETİNTAŞ V., ADAN A., BARAN Y., GÜNDÜZ C., KOSOVA CAN B.  
EACR-Sponsored 3rd Anticancer Agent Development Congress, İzmir, Turkey, 18 - 19 May 2015, pp.182
- XIV. **OVERCOMING NILOTINIB RESISTANCE BY SPECIFIC INHIBITION OF SPHINGOSINE-1-. PHOSPHATE RECEPTOR 2/GQ/ PHOSPHOLIPASE C AXIS IN CHRONIC MYELOİD LEUKEMIA**  
ADAN A., OGRET MEN B., BARAN Y.  
International Ceramide Conference, İzmir, Turkey, 6 - 10 May 2015, pp.85
- XV. **FİSETİN TARAFINDAN MODÜLE EDİLEN GEN VE GENETİK YOLAKLARIN AKUT MİYELOİD LÖSEMİ VE KRONİK MYELOİD LÖSEMİ HÜCRELERİNDE TÜM GENOM MİKROARRAY ANALİZİ İLE SAPTANMASI**  
ADAN A., BARAN Y.  
2. ULUSLARARASI KA TILIMLI DENEYSEL HEMA TOLOJİ KONGRESİ, Kayseri, Turkey, 17 - 19 April 2015, pp.32
- XVI. **HESPERETİN ARACILI APOPTOZDA ROLÜ OLAN SİNYAL YOLAKLARININ AKUT MİYELOİD LÖSEMİ VE KRONİK MYELOİD LÖSEMİ HÜCRELERİNDE TÜM GENOM MİKROARRAY ANALİZİ İLE SAPTANMASI**  
ADAN A., BARAN Y.  
2. ULUSLARARASI KA TILIMLI DENEYSEL HEMA TOLOJİ KONGRESİ, Kayseri, Turkey, 17 - 19 April 2015, pp.10

## Supported Projects

Adan A., Fidan Ö., Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Yeni uzun etkili GLP-1 Reseptör Agonistlerin Pichia pastoris'te rekombinant üretimi ve in vitro biyoaktivitelerinin belirlenmesi, 2024 - 2026

Adan A., TUBITAK Project, Kazanılmış Midostaurin Dirençli Flt3-İtd Pozitif Akut Miyeloid Lösemide Tüm-Genom Dna Metilom Ve Transkriptomik Değişimlerinin Entegre Analizi: Direncin Aşılmasında Dna Metilasyonu İle Düzenlenen Yeni Moleküler Hedeflerin Belirlenmesi, 2023 - 2026

Uzer Yılmaz B., Adan A., TUBITAK Project, Eklemeli imalat ile üretilmiş metalik biyomalzemelerde kristalografik oryantasyonun kemik doku gelişim sürecine etkisi, 2023 - 2025

Ülger H., Adan A., Project Supported by Higher Education Institutions, Titanyum Dioksit Nanopartiküllerinin Ehrlich Assit Tümör Hücreleri Üzerindeki Etkilerinin Araştırılması, 2022 - 2024

Adan A., Aydemir L. Y., TUBITAK Project, Biyoaktivitesi Geliştirilmiş Şeker Pancarı Yaprağı Protein Hidrolizatlarının Çift Katlı Emülsiyon İle Mikroenkapsülasyonu, 2021 - 2024

Adan A., Association (NGO), Midostaurin Dirençli FLT3- ITD Pozitif Akut Miyeloid Lösemide Sfingozin Kinaz ve Glukozil Seramid Sentazın Direnç Gelişimindeki Rolünün Moleküler Düzeyde Araştırılması, 2020 - 2022

Adan A., TUBITAK Project, Deneysel FLT3-ITD Pozitif Akut Miyeloid Lösemide Sfingozin Kinaz ve Glukozil Seramid Sentazın Genetik Olarak Hedeflenmesinin Midostaurin Direncinin Geri Çevrilmesindeki Rolü, 2020 - 2022

Adan A., TUBITAK Project, Resveratrol'un Ph+ Akut Lenfoblastik Lösemide Terapötik Potansiyeli ve Resveratrol Tarafından Tetiklenen Apoptozda Seramid Metabolizmasının Rolü, 2016 - 2019

## Metrics

Publication: 47

Citation (WoS): 1384

Citation (Scopus): 1450

H-Index (WoS): 13

H-Index (Scopus): 11

## Invited Talks

İlaç Direnci ve Moleküler Mekanizmaları, Conference, VI. Uluslararası Katılımlı Deneysel Hematoloji Kongres, Turkey, April 2019

KML Moleküler Biyolojisi, Conference, V. Uluslararası Katılımlı Deneysel Hematoloji Kongresi, Turkey, April 2018

KLL Genetiği ve Sinyal İletim Yolakları, Conference, IV Uluslararası Katılımlı Deneysel Hematoloji Kongresi, Turkey, April 2017

Lösemi Kök Hücre Biyolojisi, Conference, III. Uluslararası Katılımlı Deneysel Hematoloji Kongresi, Turkey, May 2016

## Awards

Adan A., Ersöz N. Ş., Oral Presentation Award, 3Nd International Conference On Natural Products For Cancer Prevention And Therapy, December 2019

Adan A., Gül Amuk N., The Beni Solow award 2017, European Journal Of Orthodontics, July 2017

ADAN A., The 15th FEBS young scientists' forum, FEBS, July 2015

Adan A., Baran Y., Kiraz Y., Dr. Nejat F. Eczacıbası Medicine Award, Scientific Project Support Award, Eczacıbası Holding, June 2015

ADAN A., Travel Grant, The Sphingolipid Club, May 2015