

CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

Part A. PERSONAL INFORMATION			CV date	12/12/2021
First name	Vicente			
Family name	Micol Molina			
Gender (*)	Male	Birth date (dd/mm/yyyy)	14/01/2021	
Social Security, Passport, ID number	22947988Z			
e-mail	vmicol@umh.es	URL Web:	Dr. Vicente Micol Molina Idibe (umh.es)	
Open Researcher and Contributor ID (ORCID) (Mandatory)		0000-0001-8089-0696		

A.1. Current position

Position	Full Professor of Biochemistry and Molecular Biology (Catedrático)		
Initial date	17/07/2012		
Institution	Universidad Miguel Hernández de Elche (UMH)		
Department/Center	IDIBE	https://idibe.umh.es/	
Country	Spain	Teleph. number	+34 96 665 8522
Key words	Polyphenols, bioactive compounds, obesity, cancer, antimicrobials		

A.2. Previous positions (research activity interruptions, art. 14.2.b)

Period	Position/Institution/Country/Interruption cause
1990-1994	Research Fellow (Post-doc)/ CALTECH / Pasadena, CA. USA
1994-1997	Senior Research Fellow / University of Murcia / Spain
1997-2012	Associate Professor (Profesor Titular) / UMH / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Biochemistry Graduate	University of Murcia	1986
Chemistry. Biochemistry PhD	University of Murcia	1990

Part B. CV SUMMARY (max. 5000 characters, including spaces)

Dr. Vicente Micol is the head of the research group “*Design and Development of Bioactive Molecules*” of the Miguel Hernández University comprising approx. 15 researchers focused on the biological activity and mechanism-of-action of natural compounds and their application to alleviate human chronic diseases such as cancer, obesity and non-communicable diseases using cell and animal models and human trials. The research group has a very significant scientific production and intense activity on technology transfer and services to companies belonging to areas such as food, pharma, functional beverages, nutraceuticals and dermo-cosmetics, as shown below.

Research merits:

Number of six-year research periods: 6 (5 of research and 1 of innovation and transference). Total number of publications in Web of Science: 180. **Total number of publications in Scopus: 185** (Q1 percentage: 65%). **H-index** (ISI-WEB, SCOPUS): **48**; H-index (Google Academics): 57. Total citations: 6500 (3815 within the period 2016-21). Average citations/year (2016-2021): 635. I have acted as “guest editor” for different special issues on “Marine Drugs”, “Int. J. Mol. Sci.”, “Antioxidants”, “Medicines” and “Frontiers in nutrition” in the last 5 years. I have acted as a reviewer for more than 30 scientific journals.

Socio-economic impact and transfer of technology:

I am a **founding member of four spin-off companies** derived from UMH and established at the UMH Scientific Park, two dedicated to nutraceuticals and functional ingredients (Nutracitrus, SL, Mitra Sol Technologies, SL), one on dermo-cosmetics (Ilice Effitech, SL) and the last on microbiome technologies (Innovation Labo SL). These four companies have captured approximately **1.3 million € from both public and private funding, and have employed 12 graduate students or PhDs in the last 15 years**. The activity of the research group have contributed to develop several final products in the functional food, nutraceutical and cosmetic sector: METABOLAID®, NUTROXSUN®, PLX® (MONTELOEDER, SL); Gama Ecotech y Endemic Biocósmética (Químicas del Vinalopó y Endemic Biotech, SL).

Teaching and Training activities:

I have been **teaching in the university for 31 years** in the graduates of Food Technology (2007-2013) and Biotechnology (2013-). I am also part of the teaching staff of the “European Master ERASMUS

MUNDUS in Translational Cosmetic and Dermatological Sciences (EMOTION)" since 2020. I have directed 28 final degree works and 12 Master final thesis. I have directed **16 Doctoral Thesis** (10 in the past ten years) and have mentored more than 75 internships for graduate students since 2006.

Additional information:

2 National Research Awards (Aquaculture in 2002 and Sports Medicine in 2009). I am **Vice Rector for International Relations** of the Miguel Hernández University since June 2015. I am part of the management team of **singular international consortia** such as: **NEUROTECHeu**, the ERASMUS+ European University of Brain and Technology, which includes eight universities across Europe (<https://theneurotech.eu/>); The Building Reliable Advances and Innovation in Neurotechnology Center (**BRAIN Center**), an industry/university collaborative interdisciplinary center founded by the Arizona State University and the University of Houston and financed by the National Science Foundation of USA, center to which the UMH group belongs as part the UMH Site focused on Neurotechnology for Obesity (<https://nsfbrain.org/>). Member (2013-2015) of “Comité Ético y de Integridad en Investigación” (authorized ethics committee) of Miguel Hernández University. I have the authorizations as animal researcher (category B, 2009) and project animal supervisor (category C, 2011).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions) (**Total number of publications in Scopus: 185. Most recent and relevant ones to the project are shown**).

- 1.- Álvarez-Martínez, F.J., Barrajón-Catalán, E., **Micol, V.** Position 3/3. *Tackling antibiotic resistance with compounds of natural origin: A comprehensive review*. **Biomedicines**, 8 (10): 405 (2020). 17 citations.
2. Herranz-López, M., Olivares-Vicente, M., Rodríguez-Gallego, E., Encinar, J.A., Pérez-Sánchez, A., Ruiz-Torres, V., Joven, J., Roche, E. & **Micol, V.** Position 9/9. *Quercetin metabolites from Hibiscus sabdariffa contribute to alleviate glucolipotoxicity-induced metabolic stress in vitro*. **Food and Chemical Toxicology**, 144, 111606 (2020). 2 citations.
3. Barrajón-Catalán, E., Álvarez-Martínez, F.J., Borrás, F., Pérez, D., Herrero, N., Ruiz, J.J., **Micol, V.** Position 7/7. *Metabolomic analysis of the effects of a commercial complex biostimulant on pepper crops*. **Food Chemistry**, 310, art. no. 125818 (2020). 10 citations.
- 4.- Herranz-López, M., Olivares-Vicente, M., Boix-Castejón, M., Caturla, N., Roche, E., **Micol, V.** Position 6/6. *Differential effects of a combination of Hibiscus sabdariffa and Lippia citriodora polyphenols in overweight/obese subjects: A randomized controlled trial*. **Scientific Reports**, 9 (1): 2999 (2019). 17 citations.
5. Boix-Castejón, M., Herranz-López, M., Pérez-Gago, A., Olivares-Vicente, M., Caturla, N., Roche, E., **Micol, V.** Position 7/7. *Hibiscus and lemon verbena polyphenols modulate appetite-related biomarkers in overweight subjects: a randomized controlled trial*. **Food Func.** 9(6):3173-3184 (2018). 34 citations.
6. Jiménez-Sánchez, C., Olivares-Vicente, M., Rodríguez-Pérez, C., Herranz-López, M., Lozano-Sánchez, J., Segura-Carretero, A., Fernández-Gutiérrez, A., Encinar, J.A., Micol, V. Position 9/9. *AMPK modulatory activity of olive-tree leaves phenolic compounds: Bioassay-guided isolation on adipocyte model and in silico approach*. Position 9/9. **PLoS ONE**, 12 (3), art. no. e0173074 (2017). 16 citations.
7. Pérez-Sánchez, A., Borrás-Linares, I., Barrajón-Catalán, E., Arráez-Román, D., González-Álvarez, I., Ibáñez, E., Segura-Carretero, A., Bermejo, M., **Micol, V.** Position 6/6. *Evaluation of the intestinal permeability of rosemary (Rosmarinus officinalis L.) extract polyphenols and terpenoids in Caco-2 cell monolayers*. **PLoS ONE**, 12 (2), art. no. e0172063, (2017). 25 Citations.
8. Herranz-López, M., Barrajón-Catalán, E., Segura-Carretero, A., Menéndez, J.A., Joven, J., & **Micol, V.** Position 6/6. *Lemon verbena (Lippia citriodora) polyphenols alleviate obesity-related disturbances in hypertrophic adipocytes through AMPK-dependent mechanisms*. **Phytomedicine** 22 (6), 605-614 (2015). 53 citations.
9. Fernández-Arroyo, S., Herranz-López, M., Beltrán-Debón, R., Borrás-Linares, I., Barrajón-Catalán, E., Joven, J., Fernández-Gutiérrez, S., Segura-Carretero, A., & **Micol, V.** Position 9/9. *Bioavailability study of a polyphenol-enriched extract from Hibiscus sabdariffa in rats and associated antioxidant status*. **Mol. Nutr. Food Res.** 56, 1590-5 (2012). 68 citations.
10. Herranz, M., Fernández-Arroyo, S., Pérez-Sánchez, A., Barrajón-Catalán, E., Beltrán-Debón, R., Menéndez, J.A., Alonso-Villaverde, C., Segura-Carretero, A., Joven, J. & **Micol, V.** Position 10/10. *Synergism of plant-derived polyphenols in adipogenesis: perspectives and implications*. **Phytomedicine** 19, 253-261 (2012). 93 citations.

C.2. Congress. 155 congresses contributions (115 international and 40 national). 20 Invited speeches in international conferences.

C.3. Research projects. 18 national/international competitive projects as principal researcher and 10 as a part of the research team (Eight most relevant ones are shown).

TÍTULO: Nuevos enfoques terapéuticos frente a enfermedades metabólicas: modulación de la ingesta de alimentos y del balance energético mediante nutracéuticos y neurotecnología

ENTIDAD FINANCIADORA: Programa PROMETEO para grupos de excelencia. CONSELLERIA DE INNOVACIÓN, UNIVERSIDADES, CIENCIA Y SOCIEDAD DIGITAL (GV). **PROMETEO/2020/059.**

CANTIDAD CONCEDIDA: 548.816,10 € **DURACION:** 01/01/2021-31/12/2024 **IP: Vicente Micol** (coIP: María Herranz)

TÍTULO: Una innovadora aproximación metabonómica inductiva para la identificación de metabolitos derivados de polifenoles de la dieta y sus dianas moleculares (**RTI2018-096724-B-C21**).

ENTIDAD FINANCIADORA: PROYECTOS I+D+i «RETOS INVESTIGACIÓN» DEL PROGRAMA ESTATAL DE I+D+i ORIENTADA A LOS RETOS DE LA SOCIEDAD. MICINN.

CANTIDAD: 145.000 € **DURACION:** 01/01/2019-31/12/202. **IP: Vicente Micol** (Proy. coordinado).

TÍTULO: Nutracéuticos de 2ª generación de plantas comestibles basados en extractos polifenólicos moduladores del metabolismo energético: Aplicaciones en la prevención de la obesidad.

ENTIDAD FINANCIADORA: DGI. MICINN (**AGL2015-67995-C3-1-R**).

CANTIDAD: 127.050 €. **DURACION:** 01/01/2016-31/12/2018. **IP: Vicente Micol** (Proy. coordinado).

TÍTULO: Foodomics evaluation of dietary polyphenols against colon cancer using in-vitro and in-vivo models.

ENTIDAD FINANCIADORA: Dirección General de Investigación. MICINN (**AGL2011-29857-C03-03**). **CANTIDAD CONCEDIDA:** 96.800 €. **DURACION:** 01/01/2012-31/12/2014. **IP: Vicente Micol**

TÍTULO: El carácter multifactorial de los polifenoles: una oportunidad para el desarrollo de herramientas terapéuticas frente a la obesidad y las enfermedades infecciosas

ENTIDAD FINANCIADORA: CONSELLERIA DE EDUCACIÓN, FORMACIÓN Y EMPLEO (GV). **PROMETEO/2016/006.**

CANTIDAD CONCEDIDA: 51.050 € (2016), 62.655 € (2017), 43.738 € (2018), 62.034 € (2019). Total: 219.477,00 €. **DURACION:** 01/01/2016 – 31/12/2019 **IP: Vicente Micol**

TÍTULO: Aumento de la actividad biológica y biodisponibilidad celular de polifenoles bioactivos mediante la utilización de nanopartículas.

ENTIDAD FINANCIADORA: CONSELLERIA DE EDUCACIÓN, FORMACIÓN Y EMPLEO (GV). **PROMETEO/2012/007.**

CANTIDAD CONCEDIDA: 160.035,00 €. **DURACION:** 01/01/2012-31/12/2015. **IP: Vicente Micol**

TÍTULO: Análisis de la capacidad antimicrobiana e inmunomoduladora de polifenoles glicosilados de especies veg. mediterráneas: actividad in vitro e in vivo. Aplicaciones en alimentación funcional.

ENTIDAD FINANCIADORA: Plan Nacional de I+D+i. Dirección General de Investigación. MEC (**AGL2007—60778**).

CANTIDAD CONCEDIDA: 93.170 € **DURACION:** 01/10/2007-04/10/10 **IP: Vicente Micol**

TÍTULO: Subprograma **CIBER**. Instituto de Salud Carlos III (ISCIII). Spanish Ministry of Health. Fisiopatología de la Obesidad y la Nutrición, CIBERobn, Spain (**CIBER: CB12/03/30038**).

ENTIDAD FINANCIADORA: Instituto de Salud Carlos III (ISCIII). **DURACION:** 01/01/2013-Actualidad.

INVESTIGADOR RESPONSABLE: J. A. Tur (investigador participante por la UMH V. Micol).

C.4. Contracts, technological or transfer merits. Participation in 85 contracts (54 as principal researcher and 31 as a part of the research team), 38 service provisions and 7 patents or Know-how transfer license agreement. Founding member of 4 spin-offs (The most relevant ones are shown).

TÍTULO: Contrato para la realización del proyecto CDTI: “INVESTIGACIÓN Y DESARROLLO EXPERIMENTAL DE NUEVOS ALIMENTOS MÁS SALUDABLES Y ENVASES AVANZADOS”

ENTIDAD: MONTELOEDER, SL.

CANTIDAD: 120.000 € **DURACION:** 01/09/2015-01/09/2019 **IP: Vicente Micol**

TÍTULO: Contrato para la realización del estudio “Evaluación de un complemento alimenticio para el control del peso en voluntarias con sobrepeso”. MONTELOEDER1.15A

ENTIDAD: MONTELOEDER, SL

CANTIDAD CONCEDIDA: 25.789,50 € **DURACION:** 02/04/2015-31/08/2015 **IP: Vicente Micol**

TÍTULO: Contrato para la realización de los trabajos de investigación del Proyecto titulado "Investigación y Desarrollo de extractos botánicos ricos en polisacáridos para su uso como emolientes y demulcentes no grasos en productos de cosmética"

ENTIDAD: Programa de Proyectos I+D+i. Centro para el desarrollo Tecnológico Industrial (CDTI). Ministerio de Economía y Competitividad. Químicas del Vinalopó (Ref: IDI-20120888).

CANTIDAD (contrato UMH): 38.000 € **DURACION:** 21/02/2013-28/02/2014 **IP: Vicente Micol**

TÍTULO: Contrato de asesoramiento para el desarrollo del proyecto "Obtención de un ingrediente funcional para el tratamiento y la prevención de la esteatosis hepática (hígado graso) con aplicaciones en los sectores alimentarios, nutracéutico y farmacéutico". MONTELOEDER, SL

ENTIDAD: Programa de Proyectos I+D+i. Centro para el desarrollo Tecnológico Industrial (CDTI). Ministerio de Economía y Competitividad (Ref: IDI-20120751).

CANTIDAD (contrato UMH): 40.000 € **DURACION:** 01/01/2013-30/03/2014 **IP: Vicente Micol**

TÍTULO: Contrato de actividades para el Proyecto titulado "Obtención de un ingrediente funcional para el tratamiento y la prevención de la esteatosis hepática (hígado graso) con aplicaciones en los sectores alimentarios, nutracéutico y farmacéutico". MONTELOEDER.

ENTIDAD: Programa de Proyectos I+D+i. Centro para el desarrollo Tecnológico Industrial (CDTI). Ministerio de Economía y Competitividad (Ref: IDI-20120751).

CANTIDAD (contrato UMH): 40.600 € **DURACION:** 01/01/2013-30/03/2014. **IP: Vicente Micol**

PATENTS and Know-how transfer license agreements

Patent: "*Equipo de expansión a vacío y ultrasonidos*". Reference: **201200830** Filing date: 09/08/2012; Priority date (granted): 13/06/2014 International Patent Classification: PCT/ES2013/000191. Filing Date: 08/08/2013. European Priority Reference: 13827136.6

Under exploitation through know-how transfer license agreement with reference: MITRASOLTEC3.16LP. N. of inventors: 6.

Exploitation period: 13/05/2016 - 12/05/2032. Company: MITRA SOL TECHNOLOGIES SL

Patent: "*Combinación sinérgica de polifenoles con actividad antibiótica eficaz frente a cepas de bacterias resistentes a antibióticos*". Reference: **201301181**

Filing date: 11/12/2013 Priority date (granted): 29/04/2016

Under exploitation through know-how transfer license agreement with reference: MITRASOLTEC1.16LP. N. of inventors: 7. Exploitation initial date: 13/05/2016 - Exploitation final date: 12/05/2033. Company: MITRA SOL TECHNOLOGIES SL

Patent: "*Método de producción de pectina modificada de cítricos*". Reference: **201301183**.

Filing date: 11/12/2013 Priority date (granted): 21/04/2016

Under exploitation through know-how license agreement with reference: MITRASOLTEC2.16LP N. of inventors: 6. Company: MITRA SOL TECHNOLOGIES SL

Exploitation initial date: 13/05/2016; Exploitation final date: 12/05/2033

Patent: "*Combinación sinérgica de flavonoides y Vitamina C*". Reference: **201300578**

Filing date: 05/06/2013; Priority date (granted): 13/06/2014

Under exploitation through know-how transfer license agreement with reference: MITRASOLTEC4.16LP. N. of inventors: 6. Company: MITRA SOL TECHNOLOGIES SL

Exploitation initial date: 13/05/2016; Exploitation final date: 12/05/2033

Patent: "*Extracción de compuestos biológicamente activos a partir de residuos de la industria de la vinificación*". Reference: **201500423**.

Filing date: 05/06/2015; Priority date (granted): 21/09/2017

Under exploitation through know-how transfer license agreement with reference: MITRASOLTEC2.15LP. N. of inventors: 7. Company: MITRA SOL TECHNOLOGIES SL

Exploitation initial date: 29/07/2015; Exploitation final date: 05/06/2035

Know-how transfer license agreement "*Contrato de licencia de know-how: Método para preparar inmunoliposomas*". Reference: EFFITECH1.18ET; 2018/00306/001

Exploitation initial date: 04/09/2018; Exploitation final date: 03/09/2028

N. of inventors: 3. Company: ILICE EFFITEC, SL

Patent: "*Composición para el control del peso a través de la modulación de los niveles de péptidos involucrados en saciedad y/o apetito*" Reference: **20170294/2026; P201731147**

Company: Monteloeder/UMH. N. of inventors: 5.

Filing Date: 25/09/2017; Priority date (granted): 25/10/18

US and International Patent Classification: US 2020/0268823 (PCT/ES2018/070600).