

# Precision Nutrition

Report Form 2020-2022



IUNS  
INTERNATIONAL  
UNION OF  
NUTRITIONAL  
SCIENCES

## Task Force Chair/s

Prof J Alfredo Martinez (Spain) and Prof Martin Kohlmeier (USA)

## Task Force Members

- Martin Kohlmeier (USA)
- Ben Van Ommen (NL)
- Helen Hermsdorf (BRA)
- Jose L Santos (CHI)
- Omar Ramos-López \*(MEX)
- Hisanori Kato\* (JPN)
- Alfredo Martinez (ESP)
- Jose M Ordovas\* (USA/Spain)
- Martin Kohlmeier (USA)
- K Livingstone\* (AUS)
- \*New members are incorporated to provide a world class representation

**Has your objective(s) as a task force been modified since the original proposal? Is so, please provide brief justification.**

The objective is to promote knowledge and communication reflecting the growing interest in relating the interactions of nutrition to the personal predisposition of individuals, now made possible by the growth of modern genomic technologies

# Have the activities to be undertaken been modified since the original proposal? If so, please provide brief overview and justification.

The activities are maintained by participant in different Forum and publications.

## Brief overview of Activities since last annual report

### Conferences, webinars or lectures at congresses

1. Omics in Personalized Nutrition 2nd ISFAN (Indonesia) 4th September 2020
  2. Metabolismo celular enfocado a Covid\_19 AGORA (USA) 12th September 2020
  3. Nutricion de Precision FINUT ( Mexico) 12th October 2020
  4. Nutricion de precisión: Perspectivas personalizadas SIAN 2020 ( Peru) 22nd October 2020  
Tecnologias omicas y nutrición de Precision FESNAD (Spain) 6th Nov 2020
  5. Personalized Nutrition USERN ( Iran) 7th Nov 2020
  6. Nutrición de precisión planetaria, poblacional y Personalizada AMENAC (Mexico) 8th Nov 2020
  7. Investigación Personalizada: prevencion de la Obesidad UNIFE (Peru ) 17 Nov 2021
  8. Alimentos funcionales para Nutricion Personalizada y comunitaria 3rd AND (Spain) , 23 Nov 2021
  9. Collaborations with ASN RIS abiu Gene Nutrient Interaction (2922)
  10. Speaker ar ISNN Momerrey, Mexico (2022)
- Ponente de The Power of Food Science and Technology and Nutrition for Sustainable Planet Heath. International Union of Food Science and Technology (IUFoST 2021)
  - Conferencia plenaria "Precision nutrition and omic sciences in obesity".III Conferencia la ValSe-Food Iberoamericana
  - Ponente de "Nutrición personalizada, comunitaria y global desde IUNS", "Genómica y microbiota como elementos de personalización en el tratamiento de la obesidad" y coordinador en SLAN-IUNS Nutricion Internacional XIX Congreso Latinoamericano de Nutrición (SLAN) 2021
  - Conferencia magistral "Genómica y microbiota como elementos de personalización en el tratamiento de la Obesidad". Simposio Internacional de actualización en Obesidad SUEO Uruguay. 2021
  - Ponente de "Polyphenols as modulators of gut microbiota composition" y moderador de la sesión inagural en el 14 Congress of the International Society of Nutrigenetics/Nutrigenomics (Rumanía).
  - Speaker in XV Congress ISNN in Mexico 2022



## Publications

1. Ramos-Lopez O, Milagro FI, Riezu-Boj JI, Martinez JA. Epigenetic signatures underlying inflammation: an interplay of nutrition, physical activity, metabolic diseases, and environmental factors for personalized nutrition. *Inflamm Res*. 2021 Jan;70(1):29-49.
2. Marchetti J, Balbino KP, Hermsdorff HHM, Juvanhol LL, Martinez JA, Steemburgo T. Relationship between the FTO Genotype and Early Chronic Kidney Disease in Type 2 Diabetes: The Mediating Role of Central Obesity, Hypertension, and High Albuminuria. *Lifestyle Genom*. 2021;14(3):73-80.
3. Navas-Carretero S, San-Cristobal R, Alvarez-Alvarez I, Celis-Morales C, Livingstone KM, O'Donovan CB, Mavrogianni C, Lambrinou CP, Saris WHM, Fallaize R, Macready AL, Lovegrove JA, Gundersen TE, Walsh M, Brennan L, Gibney ER, Gibney M, Mathers JC, Martinez JA; Food4Me. Interactions of Carbohydrate Intake and Physical Activity with Regulatory Genes Affecting Glycaemia: A Food4Me Study Analysis. *Lifestyle Genom*. 2021;14(3):63-72.
4. Martínez-González MA, Kim HS, Prakash V, Ramos-Lopez O, Zotor F, Martinez JA. Personalised, population and planetary nutrition for precision health. *BMJ Nutr Prev Health*. 2021 Jun 2;4(1):355-358. doi: 10.1136/bmjnph-2021-000235.
5. Livingstone KM, Celis-Morales C, Navas-Carretero S, San-Cristobal R, Forster H, Woolhead C, O'Donovan CB, Moschonis G, Manios Y, Traczyk I, Gundersen TE, Drevon CA, Marsaux CFM, Fallaize R, Macready AL, Daniel H, Saris WHM, Lovegrove JA, Gibney M, Gibney ER, Walsh M, Brennan L, Martinez JA, Mathers JC; Food4Me Study. Personalised nutrition advice reduces intake of discretionary foods and beverages: findings from the Food4Me randomised controlled trial. *Int J Behav Nutr Phys Act*. 2021 Jun 7;18(1):70.
6. Bordoni L, Petracci I, Zhao F, Min W, Pierella E, Assmann TS, Martinez JA, Gabbianelli R. Nutrigenomics of Dietary Lipids. *Antioxidants (Basel)*. 2021 Jun 22;10(7):994..
7. Ramos-Lopez O, Milton-Laskibar I, Martínez JA; Collaborators: Rodrigo San-Cristobal and Maria P. Portillo. Precision nutrition based on phenotypical traits and the (epi)genotype: nutrigenetic and nutrigenomic approaches for obesity care. *Curr Opin Clin Nutr Metab Care*. 2021 Jul 1;24(4):315-325.
8. Cámara M, Giner RM, González-Fandos E, López-García E, Mañes J, Portillo MP, Rafecas M, Domínguez L, Martínez JA. Food-Based Dietary Guidelines around the World: A Comparative Analysis to Update AESAN Scientific Committee Dietary Recommendations. *Nutrients*. 2021 Sep 8;13(9):3131..
9. Todendi PF, Brand C, de Castro Silveira JF, Burns RD, Martínez JA, Fiegenbaum M, Reis Gaya A, Pollo Renner JD, Reuter CP, de Moura Valim AR. Cardiorespiratory Fitness and Muscular Strength Moderates the Relationship between *FNDC5* Polymorphism and Adiposity in Children and Adolescents. *Int J Environ Res Public Health*. 2021 Sep 17;18(18):9797
10. Martinez JA, Sassi F, Moreno LA, Tur JA. Position guidelines and evidence base concerning determinants of childhood obesity with a European perspective. *Obes Rev*. 2022 Jan;23 Suppl 1:e13391.



- Foreword in TIFS and editorial in BMJ about Planetary, population and Personalized Nutrition in addition to a review in Trends in food science and Technology (2022)

## Please list any successes accomplished during this period (aligned with proposed measures of success from original proposal, or include justification for modifications)

Food World Day FAO (Global) 16th October 2020

- Ponente de The Power of Food Science and Technology and Nutrition for Sustainable Planet Health. International Union of Food Science and Technology (IUFoST, 2021)
- Ponente de Nutrición planetaria, poblacional y personalizada de precisión. XXI Congreso Argentino de Nutrición
- Ponente de "De la Dieta Clásica a la Nutrición Personalizada". Congreso SEEDO Malaga
- Conferencia plenaria "Precision nutrition and omic sciences in obesity". III Conferencia la ValSe-Food Iberoamericana
- Ponente de Dietas de Precisión en la Prevención y Tratamiento de la Obesidad y Síndrome Metabólico. VI Curso Avanzado sobre Obesidad Y Síndrome Metabólico. Real Academia Nacional de Farmacia
- Ponente de Nutrición personalizada en tratamiento de obesidad. La ciencia de la Nutrición: "Un camino para la actualización e información al consumidor y pautas a partir de las guías alimentarias". VI Jornada Peruana de Nutrición y Alimentación
- Ponente de "Nutrición personalizada, comunitaria y global desde IUNS", "Genómica y microbiota como elementos de personalización en el tratamiento de la obesidad" y coordinador en SLAN-IUNS Nutrición Internacional XIX Congreso Latinoamericano de Nutrición (SLAN) 2021
- Moderador de la Mesa de Microbiota Intestinal como mediadora de patología en XXX Reunión Científica de la Sociedad Española de Nutrición: Salud Nutricional en el Siglo XXI.
- Conferencia magistral "Genómica y microbiota como elementos de personalización en el tratamiento de la Obesidad". Simposio Internacional de actualización en Obesidad SUEO Uruguay. 2021
- Moderador mesa Procedimientos y metodología en la atención dietético-nutricional. IV Congreso de Alimentación Nutrición y Dietética. Academia Española de Nutrición y Dietética 2021.
- Ponente de "modulators of gut microbiota composition" y moderador de la sesión inauguración en el 14 Congress of the International Society of Nutrigenetics/Nutrigenomics (Rumanía).

## **Please mention your plans for the coming year and how they have been adapted based on success to date (if appropriate).**

Plans are to continue to extend understanding and to communicate the characteristics of Precision Nutrition by Webinar/congresses and Participate in a Session at the 22nd ICN-IUNS Congress in Tokyo by submitting a new proposal with New Chairs

