Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Christina Magnussen
Título del Proyecto	Distribución geográfica, impacto global y riesgo de por vida relacionado de los factores de riesgo cardiovascular clásicos en la aparición de ECV
Project Title	Geographical distribution, global impact and related lifetime risk of classical cardiovascular risk factors on CVD onset
Resumen (como fue recibido) Abstract (as submitted)	Knowledge about the impact of modifiable cardiovascular risk factors on CVD onset is essential to improve CVD prevention. We therefore aim to (1) evaluate the geographical and ethnical differences of systolic blood pressure, non_HDL-Cholesterol, BMI, smoking and diabetes (2) specify their impact on long-term CVD by calculating HRs (and/or population-attributable fractions) (3) describe the change of CVD risk over time (4) calculate related lifetime risk and gain through risk factor modification. To answer these questions, we founded the Global Cardiovascular Risk Consortium (GCVRC) which to date includes 71 cohorts from 34 countries summarizing about 1.5 million individual level data. Preliminary analyses are based on the European MORGAM/BiomarCaRE consortia, which are EU-funded initiatives harmonizing European population-based studies to investigate cardiovascular risk in Europe.

Fecha de Primer Contacto Date First Contact Made	18/01/2021	País Country	Alemania/Germany
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2021-001	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Los perfiles socioeconómicos adversos modifican el impacto de los rasgos del grupo de riesgo cardiovascular basados en datos sobre la mortalidad cardiovascular
Project Title	Adverse socioeconomic profiles modify the impact of data-driven cardiovascular risk cluster traits on cardiovascular mortality
Resumen (como fue recibido) Abstract (as submitted)	We propose to perform data-driven cluster traits using socioeconomic and cardiometabolic risk factors to predict overall and CVD-related mortality in Mexican population. The primary aim of this work is to evaluate the added contribution of assessing socio-demographic in addition to traditional cardiovascular risk factors for prediction of all-cause and CVD-related mortality. Additional aims include assessment of socio-demographic profiles which increase cardiovascular risk factor burden in specific populations. Overall, we expect our work to provide valuable insight on the impact of socio-demographic inequalities on the risk of cardiovascular disease in Mexicans, which will provide valuable guidelines to inform public policy implications for targeted prevention of cardiovascular risk factors and reducing the burden of cardiovascular disease taking into consideration the complex interplay of socio-demographic risk factors.

Fecha de Primer Contacto Date First Contact Made	10/05/2021	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2021-004	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Lorena Orozco
Título del Proyecto	Aprovechando la cohorte MCPS: hacia la medicina de precisión y la genética de poblaciones en poblaciones mexicanas/latinoamericanas
Project Title	Leveraging the MCPS cohort: towards precision medicine and population genetics in Mexican/Latin American populations
Resumen (como fue recibido) Abstract (as submitted)	Genome-wide studies (GWS) have become a powerful tool for the identification of rare and common genetic factors associated with different human conditions as well as for population genetic studies. However, the GWS performed to date have been carried out mostly in populations of European origin. The lack of representation of different populations in these types of studies limits the genomic knowledge as well as the development of precision medicine in these populations. We propose the use of MCPS cohort for two aims: 1) to develop precision medicine in the Mexican population as follows: a) to validate a polygenic risk score (PRS) for metabolic diseases (MD) previously obtained in our laboratory; b) to identify rare variants responsible of monogenic forms of MD. 2) to explore the population genetics of Mexican population as follows: a) to study the Y chromosome and the mitogenome; b) to estimate the age of identical by descent (IBD) segments of the genome in order to provide a better rationale about the history of these populations; c) to validate previously identified selection sweeps in indigenous populations and to identify recent ones.

Fecha de Primer Contacto Date First Contact Made	29/06/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-004	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Yanink Caro-Vega
Título del Proyecto	Historia reproductiva femenina y muertes relacionadas con el cáncer entre participantes de la cohorte del Estudio Prospectivo de la Ciudad de México (EPCM)
Project Title	Female reproductive history and cancer-related deaths among participants in the Mexico City Prospective Study (MCPS) cohort
Resumen (como fue recibido) Abstract (as submitted)	Cancer is the fourth leading cause of death in Mexico among women. Gynaecological cancers (breast cancer, cervical cancer, and ovarian cancer) account for most of these deaths in women younger than 60 years. Deaths due to gynaecological cancers in Mexico have shown an association with poverty, lack of formal education and low health access, but not with reproductive history. Factors as lower age of menarche has been associated with an increased risk of all-cause mortality and variables such as hormone replacement therapies, age at menopause has been associated to breast cancer incidence3 but no general mortality or other types of cancer (e.g. cervical cancer) mortality. Also, age at first pregnancy has been associated with genomic changes related to breast cancer, and with lower risk of endometrial cancer. Our aim is to describe the reproductive history of women participating in the Mexico City Prospective Study and to study their association with all cancer causes of death. To understand the potential relation of reproductive history to cancer as cause of death, could help to identify prevention factors of the disease among Mexican women of low resources.

Fecha de Primer Contacto Date First Contact Made	10/08/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-007	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Tabaquismo y mortalidad por causas específicas en personas con diabetes en México: un análisis del Estudio Prospectivo de la Ciudad de México
Project Title	Smoking and cause-specific mortality in individuals with diabetes in Mexico: an analysis of the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	The primary aim of this study is to determine the effect of smoking on all-cause and cause-specific mortality in individuals with diabetes. We wish to compare the risk of death among never, current, and former smokers and establish whether smoking confers an increased risk of dying due to cardiovascular disease, several types of cancer, infection (including COVID-19), and chronic obstructive pulmonary disease (COPD). Further, we propose to establish whether the intensity of exposure (number of cigarettes), the age started smoking or the moment of quitting has any modifying effect. Finally, we propose to analyse whether smoking is associated with worse glycaemic control and death due to specific diabetic complications. In Mexico, where diabetes is the third most frequent cause of death and smoking persists as a significant risk factor for the population, the joint study of these conditions should provide better and objective knowledge to improve care, encourage cessation, and guide smoking-related policy with the final aim of reducing mortality and morbidity in individuals with diabetes.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-01	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Determinantes clínicos y sociodemográficos de la diabetes incidente en adultos aparentemente sanos residentes en la Ciudad de México
Project Title	Clinical and sociodemographic determinants of incident diabetes in apparently-healthy adults living in Mexico City
Resumen (como fue recibido) Abstract (as submitted)	The primary aim of this analysis is to determine incident rates of diabetes among Mexican adults. We are especially interested in exploring the effect given by BMI, waist-to-height ratio, HbA1C, smoking, sociodemographic information and metabolomic data on the risk of developing the disease. We wish to estimate incidence rates among individuals with and without prediabetes detected during baseline survey and determine which factors are related to progression towards overt diabetes in this population. Further, we propose exploring baseline characteristics of young individuals free of the disease who eventually develop early-onset diabetes to better characterize this subgroup. Finally, we would like to perform spatial analysis to determine whether living on a marginalized area increases the risk of developing diabetes in Mexico City. Diabetes mellitus is of public health concern in Mexico. During the last decades, diabetes prevalence has increased substantially, and in 2021 it was the third most frequent cause of death. Despite this fact, diabetes incidence has been scarcely studied in Mexico or other Latin-American countries. Analyzing factors related to incident diabetes might improve awareness and preventive measures to address the growing burden the disease imposes on the Mexican healthcare system.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-02	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Validación externa y recalibración de AnthropoAge como medida de la edad biológica para la predicción de la mortalidad por todas las causas y por causas específicas: un análisis prospectivo en 150.000 individuos del Estudio Prospectivo de la Ciudad de México
Project Title	External validation and recalibration of AnthropoAge as a measure of biological age for prediction of all-cause and cause-specific mortality: A prospective analysis in 150,000 individuals from the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	With this project we aim to validate our previously developed biological age metric (AnthropoAge) using anthropometric data specific to the Mexican population and use it to assess various age-related outcomes. For this purpose, we would require availability of anthropometric and all-cause and cause-specific mortality data, as well other parameters that likely capture specific aging domains, such as metabolic dysregulation (HbA1c, glucose, lipids profile) and renal function (serum and urinary albumin and creatinine). We would also benefit from full access to the resurvey data to evaluate body composition with bioimpedance and to estimate incidence of age-related diseases. With this study, we would be able to refine an easily accessible and inexpensive biological age indicator. This would allow us —and many other researchers— to better characterize the aging process in Mexican population and stratify patients at higher risk of disability, age-related diseases and mortality to tailor specific preventive and therapeutic interventions.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-03	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Caracterización metabólica, antropométrica y sociodemográfica del envejecimiento antropométrico acelerado: un análisis longitudinal del Estudio Prospectivo de la Ciudad de México
Project Title	Metabolomic, anthropometric and sociodemographic characterization of accelerated anthropometric aging: a longitudinal analysis of the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	The aim of this project is to provide a comprehensive characterization of transitions in anthropometric aging across lifespan and to evaluate sociodemographic and lifestyle factors associated with age acceleration or deceleration. We also seek to assess consequences of age acceleration such as incidence of age-related diseases. Finally, we intend to find metabolic pathways and dysregulations that determine specific trajectories and phenotypes of anthropometric aging. For these analyses, we require full access to both baseline and re-survey data in order to obtain: 1) Longitudinal changes in AnthropoAge, which would enable us to assess aging transitions across lifespan. 2) Sociodemographic and lifestyle determinants to evaluate a myriad of risk factors for anthropometric aging acceleration. 3) Incidence of diabetes, hypertension, and other age-related diseases. 4) Changes in glycaemic control, renal function, and development of chronic complications for previously diabetic patients. 5) Metabolomic data to find pathway dysregulations specific to poor age-related outcomes. We believe that these results would greatly contribute to our current understanding of the pathophysiological mechanisms that regulate aging (particularly pertaining to its body composition domain) and its effect on disease and mortality, which in turn would allow us to design or reinforce interventions to mitigate such mechanisms.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-04	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Caracterización integral de la mortalidad relacionada con el riñón y la función renal en un estudio prospectivo de personas con diabetes en la Ciudad de México
Project Title	Comprehensive characterization of Kidney-Related Mortality and Kidney function in a Prospective Study of Individuals with Diabetes in Mexico City
Resumen (como fue recibido) Abstract (as submitted)	We aim to assess the effect of anthropometric, diagnosis-related, and socioeconomic factors over the risk of death due to renal causes on people with diabetes. We also propose to compare whether the risk of dying related to these factors differs between individuals with diagnosed and undiagnosed diabetes, and between individuals with treated and untreated diabetes and to explore how these modify the influence of glycemic control in these outcomes. Further, we wish to explore which renal causes of death are most frequent in this prospective cohort. Overall, we propose to evaluate the following factors: 1) To develop a model for prediction of kidney-related death compared to other causes in individuals with diabetes without kidney disease at baseline. 2) To evaluate progression of kidney disease to different causes of death in individuals with diabetes and established kidney disease. 3) To evaluate the metabolomic profile of individuals with diabetes who died due to kidney-related causes to identify metabolite profiles linked to these outcomes. Given that kidney disease is one of the leading causes of death in individuals with diabetes, we expect that the results from our characterization will lead to a better understanding of diabetes-related kidney disease and identify potential elements where intervention may reduce the burden of this complication in Mexican adults.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-05	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	La prediabetes como factor de riesgo de enfermedad cardiometabólica, mortalidad por todas las causas y por causa específica en población no diabética de la Ciudad de México
Project Title	Prediabetes as a risk factor for cardio-metabolic disease, all-cause and cause-specific mortality in non-diabetic population in Mexico City
Resumen (como fue recibido) Abstract (as submitted)	The aim of this project is to characterize prediabetes as a risk factor for incident cardio-metabolic diseases and mortality, and to identify profiles of prediabetes which are linked with increased cardio-metabolic risk. We also plan on validating previous prediabetes subgroup clusters, their clinical and sociodemographic profiles, and the risk of incident diabetes in each subgroup. Finally, we also aim to explore the impact of age on the influence of prediabetes as a risk factor. Overall, we aim to provide a comprehensive characterization of prediabetes in Mexican adults to understand the significance of its identification. For these analyses, we require full access to both baseline and re-survey data to perform the following: 1) Risk of all-cause and cause specific mortality in individuals with prediabetes compared to individuals without both diabetes and prediabetes. 2) Sociodemographic and lifestyle characteristics of prediabetes and the influence of these in the risk of reversion from prediabetes to normoglycemia and progression from prediabetes to diabetes. 3) Incidence of diabetes, hypertension, and other cardio-metabolic diseases in individuals with prediabetes. 4) Changes in glycaemic control, renal function, and development of chronic complications in survivor individuals with prediabetes at baseline. 5) Metabolomic data to find pathway dysregulations specific to individuals with prediabetes, their atherogenic profiles and the influence of these in prediabetes-related outcomes. 6) Changes in anthropometry which may relate to improvement or worsening of glycaemic control in individuals with prediabetes. Given the large prevalence of prediabetes and alterations in glucose metabolism in Mexico, we believe that these results would greatly contribute to our current understanding of this condition as a risk factor for cardio-metabolic disease, the impact of screening this condition and long-term prognosis for these subjects.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-06	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Validación externa y recalibración de calculadoras de riesgo cardiovascular para enfermedades cardiovasculares incidentes y fatales y caracterización de perfiles de lipoproteínas en individuos de mayor riesgo en adultos mexicanos del Estudio Prospectivo de la Ciudad de México
Project Title	External validation and recalibration of cardiovascular risk calculators for incident and fatal cardiovascular disease and characterisation of lipoprotein profiles in individuals at highest risk in Mexican adults from the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	The aim of this project is to provide an external validation and recalibration of widely used cardiovascular risk equations, including the Globorisk, Globorisk-LAC and Framingham risk calculators in their office and laboratory-based models. We will assess their predictive capacity for fatal cardiovascular disease, defined as cardiovascular mortality compared to other causes, and non-fatal cardiovascular disease in individuals without cardiovascular disease at baseline evaluation. For these analyses, we require full access to both baseline and re-survey data to obtain: 1) Estimates of performance for Globorisk, Globorisk-LAC and the Framingham equations for prediction of all-cause and cardiovascular mortality. 2) Recalibration metrics for all evaluated equations for prediction of all-cause and cardiovascular mortality. 3) Predictive capacity for all evaluated calculators for incidencee of hypertension, stroke, myocardial infarction, heart failure, and other cardiovascular diseases. 4) Metabolomic data to identify lipoprotein profiles of patients at increased cardiovascular risk identified using each equation. External validation and calibration of these cardiovascular risk calculators will be extremely valuable to assess the feasibility of their application in clinical practice to assess cardiovascular risk and make decisions regarding treatment initiation for prevention of cardiovascular disease and monitoring. This will also be useful to recalibrate cardiovascular risk equations to more appropriate coefficients which consider particularities of Mexican population and their applicability in real-world settings.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-07	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Validación externa del índice de masa grasa relativa para la predicción de la mortalidad por todas las causas y por causas específicas en la Ciudad de México
Project Title	External validation of the relative fat mass index for prediction of all-cause and cause-specific mortality in Mexico City
Resumen (como fue recibido) Abstract (as submitted)	The aim of this project is to provide an external validation of the relative fat mass index equation previously developed and validated for US population in Mexican adults. We will provide two forms of validation for this equation, an outcome-driven approach and a validation using a proxy of body composition assessment using bioimpedance measurements. For these analyses, we require full access to both baseline and re-survey data to obtain: 1) Validation of the relative fat mass index for prediction of all-cause and cause specific mortality. 2) Comparison of the performance of the relative fat mass index with other body measurements for prediction of all-cause and cause specific mortality. 3) Assessing the usefulness of the relative fat mass index and changes in this index in the prediction of incident cardiovascular disease, diabetes, and hypertension. 4) Comparison of prediction of the relative fat mass index evaluated against body-composition assessment using there survey data. We believe that these results would provide a valuable validation of this relatively simple index which may aid in providing a more accurate representation of body composition compared to traditional evaluations using the body mass index and which may be complementary to other measures which assess visceral adiposity. Validation of this index in Mexican population will help promote its implementation in national epidemiological studies.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-08	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Evaluación de la heterogeneidad en el agrupamiento de la hipertensión y su riesgo de mortalidad por todas las causas y por causas específicas
Project Title	Assessing heterogeneity in hypertension clustering and its risk for all-cause and cause-specific mortality
Resumen (como fue recibido) Abstract (as submitted)	Heterogeneity in hypertension could be explained by the levels of risk factors for hypertension, blood pressure control, associated comorbidities and sociodemographic status. However, few studies have been derived from data from Latino or Mexican population and do not include the several risk factors to define hypertension phenotypes. This primary objective of this study is to identify hypertension phenotypes using clinical, anthropometric, sociodemographic and biochemical variables. As secondary objectives, we will seek to evaluate the relationship between phenotypes and all-cause and cause-specific mortality. Additionally, as secondary objectives we will seek to associate the phenotypes and metabolomic profile. We hope that this proposal results in better understanding about the heterogeneity of hypertension and contributes to improved medical practice and epidemiological research.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-09	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Caracterización de la heterogeneidad en la carga de ECV entre adultos mexicanos con diabetes: un enfoque de medicina de precisión para la prevención primaria de ECV
Project Title	Characterizing heterogeneity in CVD burden among Mexican adults with diabetes: a precision medicine approach to primary CVD prevention
Resumen (como fue recibido) Abstract (as submitted)	Cardiovascular disease (CVD), primarily ischemic heart disease, is the leading cause of mortality and disability in Mexico. Multi-risk factor management in people with type 2 diabetes, which is a key accelerant of CVD and highly prevalent in Mexico, has been an important focus of CVD risk-mitigation in Mexico. However, accumulating evidence on the heterogeneity of CVD risk among people with type 2 diabetes suggests that current tools for the early identification of people at the highest risk of CVD could be refined by the incorporation of more nuanced, population-specific variables which also consider the heterogeneity of phenotypes in diabetes. Such tools may be particularly important in contexts like Mexico, where CVD risk factors and CVD mortality cluster within populations with social disadvantage, and who may be of admixed ethnic ancestry. Moreover, Mexico has one of the highest incidence rates of early-onset type 2 diabetes (age 20-39) within Latin America. While current primary CVD prevention guidelines recommend lipid-lowering pharmacotherapy for people with type 2 diabetes ≥40 years, the approach to primary CVD prevention among younger people with type 2 diabetes is less clear and highly relevant to clinical care in Mexico. A framework for the classification of diabetes subtypes derived from clinical parameters has emerged in recent years, which shows substantial heterogeneity in type 2 diabetes phenotypes, as well as in the association between these phenotypes and risk of macro and microvascular complications. Although the original diabetes clusters were validated in primarily White ancestry populations, a growing body of research has found their reproducibility in other contexts, including in various low- and middle-income countries (LMICs). In Mexico, my research team pioneered the development of an analytical framework that characterized and identified four distinct diabetes subtypes: obesity related, insulin deficient, insulin resistant, and age related. We also identified microvascular complications associated with each subtype using simplified variables for application in a more diverse set of epidemiological cohorts. It is not yet known, however, whether each diabetes subtype carries a higher burden of CVD risk and mortality in the Mexican population, and whether this risk varies across age groups and different sociodemographic contexts. The overall goal of this research proposal is to characterize the incidence and risk of CVD across distinct diabetes subtypes among Mexican adults and to assess whether there is heterogeneity in the sociodemographic distribution of CVD risk across these phenotypes in the Mexican population. Characterizing the heterogeneity of CVD risk across these subtypes could facilitate a precision medicine approach to CVD prevention and to the development of tailored tools to predict and prevent CVD among high risk populations.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-10	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Creación y validación de una escala predictiva de muertes cardiometabólicas mediante un enfoque de consultorio, bioquímico y metabolómico
Project Title	Inception and validation of a predictive scale for cardiometabolic deaths using a office, biochemical and metabolomic approach
Resumen (como fue recibido) Abstract (as submitted)	Several cardiovascular disease (CVD) risk prediction tools have been created for Caucasian population, however, few of them have been derived from data from Latino or Mexican populations. The primary objective of this study is to generate clinical risk scores for predicting CVD related-mortality and incident CVD-events, using three clinical approaches (office-based, biochemical-based, and metabolomic-data) using data from the Mexico City Prospective Study. As secondary objectives, we will seek to validate our CVD risk prediction scores using data from the National Health and Nutrition Survey (NHANES) from the cycles of 1998 to 2018. Additionally, as secondary objectives we will seek to generate an electronic application that allows the application of our risk scores in the context of health care. We hope that this proposal results in a low-cost tool for direct use in medical practice and epidemiological research.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-11	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Determinantes sociodemográficos individuales de la mortalidad evitable en la Ciudad de México Estudio prospectivo
Project Title	Individual sociodemographic determinants of avoidable mortality in Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	Avoidable mortality could be interpreted as deaths that could be managed by an appropriated health service system and that should not occur in the presence of effective and timely healthcare. Nevertheless, there is limited evidence using disaggregate data that have evaluated whether preventable deaths are determinated through sociodemographic determinants at an individual level. In this study, we will aim as a primary objective to identify the sociodemographic factors that are associated with a higher risk of preventable, treatable deaths using data from the prospective cohort from Mexico City. We will classify avoidable death causes into eight categories using ICD-10 code classification according to Aburto et al (Health Aff 2016, 35, 88-95). We hope our study produces fundamental evidence to conceptualize contributors for this disease and identify groups of socioeconomic vulnerability in the Mexico City Prospective Study.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-12	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Patrones de estilo de vida y su efecto de mediación con perfiles de riesgo cardiometabólico y metabolómico sobre el riesgo de mortalidad por todas las causas y por causas específicas
Project Title	Lifestyle patterns and its mediation effect with cardiometabolic and metabolomic risk profiles on the risk for all-cause and cause-specific mortality
Resumen (como fue recibido) Abstract (as submitted)	Lifestyle is a multidimensional concept that determines the progress and outcomes of chronic-degenerative diseases. In a simplified way, diverse epidemiological studies have sought to cover diet quality, exercise habits, and sleep hygiene as lifestyle determinants of health. Nevertheless, it is unknown if these lifestyle items have an impact on the cardiometabolic and metabolomic profile and its association with mortality. The primary objective of this study is to evaluate if the quality of the diet, exercise habits, and sleep hygiene are associated with a higher risk of overall mortality and for specific causes. As secondary objectives, we will seek to determine whether the risk conferred by these lifestyle parameters is being mediated by anthropometric, biochemical and metabolomic markers related to increased cardiometabolic risk in the relationship with all-cause and cause-specific mortality. Overall, we hope that these results will lead to a better understanding of the association between adverse lifestyles factors and the mechanism by which they confer a higher risk for the evaluated outcomes.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-13	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Diabetes e hipertensión arterial no diagnosticadas, no tratadas y no controladas y su riesgo de mortalidad por todas las causas y por causas específicas
Project Title	Undiagnosed, untreated, and uncontrolled diabetes and arterial hypertension and its risk for all-cause and cause-specific mortality
Resumen (como fue recibido) Abstract (as submitted)	The clinical outcomes related for arterial hypertension and type 2 diabetes depend on the appropriate diagnosis, treatment, and therapeutic control; however, the impact that it could have on the risk of all-cause mortality remains unclear. In this project, our primary objective is to characterize the profiles of arterial hypertension and type 2 diabetes and their relationship with risk of mortality from all-causes and cause-specific mortality in the Mexico City Prospective Study. As secondary objectives, we will seek to evaluate whether there is an interaction risk between both entities, such that the combined presence of undiagnosed, untreated, or uncontrolled arterial hypertension, type 2 diabetes or both that could increase the risk of mortality. Furthermore, we will seek to evaluate the impact that certain social determinants have on health, such as the health-care provider, and use of pharmacological therapies as interactors in mortality risk. In general, we want our work to provide useful epidemiological information to prioritize diagnosis, timely treatment, and control goals for these chronic-degenerative conditions.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-14	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Validación de un índice tomográfico y metabólico para la enfermedad aterosclerótica coronaria (ToMI-CAD) para la mortalidad cardiometabólica por todas las causas y por causa específica
Project Title	Validation of a Tomographic and Metabolic Index for Coronary Atherosclerotic Disease (ToMI-CAD) for all-cause and cause-specific cardiometabolic mortality
Resumen (como fue recibido) Abstract (as submitted)	Atherosclerotic disease is a condition that predisposes to the development of cardiovascular events and cardiovascular mortality. Particularly, coronary atherosclerotic disease is often unrecognized, asymptomatic, and accompanied by a cascade of underlying cardiometabolic factors. Despite this, there are no clinical surrogates that allow for quantification of the degree of subclinical atherosclerosis in Mexican or Latino-Population patients. This study aims to validate and predict the risk of cardiovascular mortality using an office-based atherosclerotic index named Tomographic and Metabolic Index for Coronary Atherosclerotic Disease (ToMI-CAD) previously developed in a cohort of Mexicans individuals. As secondary objectives, we will seek to assess whether the ToMI-CAD predicts incident cardiovascular events within the resampling of the Mexico City cohort.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-15	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Ocupaciones laborales y su interacción con los perfiles de riesgo cardiometabólico para los perfiles de riesgo de mortalidad por todas las causas y por causas específicas
Project Title	Working occupations and its interaction with cardiometabolic risk profiles for the risk profiles for all-cause and cause-specific mortality
Resumen (como fue recibido) Abstract (as submitted)	The occupation that a person performs in a society determines various sociodemographic factors linked to the health and disease process of an individual. In this study, we will seek to assess the impact that various socioeconomic occupations have on the risk of dying from any cause and from specific causes. As secondary objectives, we will seek to assess whether there is an associated interactor cardiometabolic risk profile associated with each group that promotes a greater risk of mortality from total causes and specific causes according to the job categories. We hope that this work will lead to a more extensive knowledge of vulnerable occupations that may exist in the Mexico City cohort, and that this may lead to health policies to reduce the burden of mortality in Mexicans.

Fecha de Primer Contacto Date First Contact Made	18/05/2022	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-012-16	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Gary O'Donovan
Título del Proyecto	Asociaciones longitudinales del 'guerrero de fin de semana' y otros patrones de actividad física con la mortalidad: el estudio prospectivo de la Ciudad de México
Project Title	Longitudinal associations of the 'weekend warrior' and other physical activity patterns with mortality: the Mexico City Prospectve Study
Resumen (como fue recibido) Abstract (as submitted)	In our study of more than 60,000 men and women, we showed that the risk of mortality was around 30% lower in 'weekend warriors' who performed all their exercise in one or two sessions per week (O'Donovan et al., JAMA Internal Medicine, 2017, 177, 3, 335-342). One of the limitations of our study is that it was set in England and Scotland and it may not be appropriate to generalise the results to other settings. Another limitation of our study and most cohort studies is that physical activity was only assessed at baseline and it was not possible to investigate the effects of changes in physical activity on mortality. Physical activity was assessed at baseline and after around 16 years of follow-up in the Mexico City Prospective Study. The main objective of the proposed research is to investigate associations of the weekend warrior and other physical activity patterns with mortality in the Mexico City Prospective Study. The secondary objective is to investigate associations of changes in physical activity patterns with mortality. Lack of time is a barrier to physical activity in Latin America and there would be important implications for policy and practice if we were to show that participation in one or two sessions of physical activity per week is sufficient to reduce mortality risk.

Fecha de Primer Contacto Date First Contact Made	17/11/2022	País Country	Colombia/Colombia
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-015	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Investigador(a) principal Principal Investigator	Dr Gerson Ferrari
Título del Proyecto	Factores de riesgo del estilo de vida y mortalidad por todas las causas y por causas específicas en adultos mexicanos
Project Title	Lifestyle risk factors and all-cause and cause-specifc mortality in Mexican adults
Resumen (como fue recibido) Abstract (as submitted)	In several prospective cohort studies, lifestyle risk factors (e.g., smoking, heavy alcohol drinking, lack of physical activity, and adiposity) have been associated with increased all-cause and cause-specific mortality, such as cardiovascular disease (CVD) and cancer mortality. CVD burden attributable to modifiable risk factors has been estimated in several countries for setting priorities for CVD prevention strategies. The main objective of this project is to investigate associations of modifiable risk factors (both in isolation and in combination) with adverse health outcomes in the Mexico City Prospective Study. Furthermore, we will measure by the financial impact of non-communicable diseases (NCDs) attributable to modifiable risk factors. We believe that a large proportion of CVD and premature deaths could be averted by targeting a few modifiable risk factors. While some risk factors warrant global policies (e.g. inadequate food, smoking, heavy alcohol drinking, lack of physical activity, and overweight and obesity), the importance of several risk factors at different economic and education levels, highlights the need for additional context-specific priorities for prevention of CVD mortality, cancer mortality, and all-cause mortality.

Fecha de Primer Contacto Date First Contact Made	15/12/2022	País Country	Chile/Chile
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2022-020	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación y análisis de variantes médicamente accionables en la población mexicana
Project Title	Identification and analysis of medically actionable variants in the Mexican population
Resumen (como fue recibido) Abstract (as submitted)	Genomic sequencing of individuals that are part of biobanking initiatives allows for the genotype-first unbiased identification of individuals at increased risk of developing cancer, cardiovascular disease, or other conditions that can be medically actionable. The identification of these high-risk medically actionable variants also allows the prevalence of these genetic disorders in populations of interest, such as underrepresented and underserved populations to be established. Analyses of genomic data from large-scale population sequencing projects such as the Mexico City Prospective Study (MCPS) will allow the identification of medically actionable variants and estimate their frequencies in an underrepresented non-European ancestry population. We will compile a list of reported pathogenic variants in medically actionable genes and identify these and likely pathogenic variation in individuals from the MCPS study. We will use individual level genomic data to confirm these variants and familial relationships derived from the genetic data to segregate the identified variants and determine their overall population frequency.

Fecha de Primer Contacto Date First Contact Made	11/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-01	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación de variantes genéticas asociadas al riesgo de Alzheimer de inicio temprano en la población mexicana
Project Title	Identification of genetic variants associated with Early Onset Alzheimer's Disease risk in the Mexican population
Resumen (como fue recibido) Abstract (as submitted)	Dementia is a general term that includes different pathologies with a similar clinical course, symptoms and histopathological features such as progressive memory loss, disturbance of cognitive function and deterioration of language and judgment. Alzheimer's Disease (AD) is the most common form of dementia in the world, comprising 55% to 70% of all dementia cases. Early Onset Alzheimer's Disease (EOAD) is a rare form of AD with onset before 65 years of age, affecting people in their 3rd and 4th decades of life. EOAD accounts for about 10% of all AD cases and the majority of patients have a positive family history. Genetic variation in a handful of genes have been associated with autosomal dominant inheritance in familiar cases. The aim of this study is to identify high-risk variants for EOAD and survey their frequencies in the Mexican population to understand the background population susceptibility to this disease.

Fecha de Primer Contacto Date First Contact Made	11/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-02	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación de variantes genéticas asociadas al cáncer hereditario en la población mexicana
Project Title	Identification of genetic variants associated with hereditary cancer in the Mexican population
Resumen (como fue recibido) Abstract (as submitted)	Cancer is a major cause of morbidity and mortality worldwide. Although the majority of cancer cases will develop sporadically due to mutations in cancer driving genes over the lifetime of individuals, a number of cases have strong familial aggregation due to inherited variants within families and segregating within populations. Population-wide genomic studies facilitated in recent years by the decrease in sequencing costs and increased throughput of genomic sequencing technologies allow for the identification of genomic variants that confer increased risk of developing complex disorders like cancer. The aim of this study is to identify pathogenic and likely pathogenic variants associated with hereditary cancer disorders and survey their frequencies in the Mexican population to understand the background population susceptibility to different types of hereditary cancer.

Fecha de Primer Contacto Date First Contact Made	11/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-03	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual Colaborativo/Collaboration Individual

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación y análisis de la variación asociada a los trastornos mendelianos en la población mexicana
Project Title	Identification and analysis of Mendelian disorders associated variation in the Mexican population
Resumen (como fue recibido) Abstract (as submitted)	Mendelian disorders are characterized by being caused by highly-penetrant variants, most of which are rare or low frequency. Genomic sequencing of individuals that are part of biobanking initiatives allows for the genotype-first unbiased identification of individuals carrying pathogenic variation in genes associated with Mendelian conditions. The identification of these highly-penetrant variants also allows the prevalence of these genetic disorders in populations of interest, such as underrepresented and underserved populations to be established. Additionally, the identification of adult individuals carrying pathogenic variation for Mendelian conditions enables the better understanding of the adult manifestation, penetrance, and progression of genetic conditions that have been primarily described in children. Studies of highly-penetrant disease variation associated with Mendelian conditions in understudied populations, such as the Mexican population, is necessary to better understand the etiology and genetic architecture of human disease.

Fecha de Primer Contacto Date First Contact Made	11/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-04	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación y análisis de variación estructural en la población mexicana
Project Title	Identification and analysis of structural variation in the Mexican population
Resumen (como fue recibido) Abstract (as submitted)	Genomic structural variants (SVs), which were once considered rare events, are now recognized as the larger source of genomic variation in terms of overall number of bases involved and contributing to a difference of 0.4% between two human individuals. Additionally, SVs have also been shown to play an important role in phenotypic variation, human traits, and genetic diseases. Most large studies of genomic SV have been conducted in Eurocentric populations, ignoring the breadth of human genomic variation present in underrepresented populations such as the ones in Latin America, including the Mexican population. We aim to identify, analyse, and characterize the spectrum of structural variation in the Mexican population leveraging the genomic data from exomes and especially whole genome sequence data from the MCPS cohort. We will also perform bioinformatic analyses looking at different assembly approaches leveraging other genomes that may be more representative of the Mexican population. Considering that no large-scale studies of structural variation have been carried out in Latin American populations and MCPS being the largest cohort study of its type in a non-European ancestry population, the results of this study will allow better characterisation of the unique genomic features and SVs of Mexican genomes.

Fecha de Primer Contacto Date First Contact Made	11/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-05	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Investigador(a) principal Principal Investigator	Dr Cristopher Van Hout
Título del Proyecto	Efectos del padre de origen de los determinantes genéticos del riesgo de diabetes y rasgos relacionados en el estudio prospectivo de la Ciudad de México
Project Title	Parent of origin effects of genetic determinants of diabetic risk and related traits in the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	Genome wide association studies of differential genetic effects depending on the parental inheritance of alleles (maternal or paternal) have been described for type 2 diabetes (Kong et al., Nature 2009). Dr. Van Hout has led previous studies of parent of origin effects in biobank scale studies (Kim et al., HGGA 2021). Here, we propose to evaluate parent of origin genetic models for T2D and related traits in MCPS, which 1) has a substantially greater number of family relationships than comparable resources such as UK Biobank which improves statistical power and 2) has the potential to reveal novel susceptibility loci that are specific to the Mexican population. Relevant data include exome sequence, array genotype data, and all T2D related phenotype information for all available study participants. Notably, related phenotypes are useful in determining whether associations with T2D are independent of risk factors, such as obesity. T2D is one of the top public health risks in Mexico and in the world, thus increasing the understanding genetic risk susceptibility for T2D has the potential to advance diagnostic and translational approaches and ultimately improve human health.

Fecha de Primer Contacto Date First Contact Made	11/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-06	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual Colaborativo/Collaboration Individual

Investigador(a) principal Principal Investigator	Dr Cristopher Van Hout
Título del Proyecto	Modelando la relación entre obesidad y cáncer en el Estudio Prospectivo de la Ciudad de México
Project Title	Modeling the relationship between obesity and cancer in the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	The prevalence of cancers in Mexico City Prospective Study (MCPS) is low compared to expectation, but prostate, breast, and cervical cancers seem to be the most common types. This proposal aims to look closely into different types of cancer among MCPS participants and examine the environmental and genetic correlation between obesity and cancer risk. We will evaluate the prevalence of different cancers in MCPS and compare it with the global expectation. We aim to determine the relationship between metabolically healthy obesity, regional adiposity, and different cancers, and examine the genetic association of obesity with cancer risk.

Fecha de Primer Contacto Date First Contact Made	31/03/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-07	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación de variantes farmacogenómicas asociadas con la respuesta a medicamentos y el metabolismo en la población mexicana
Project Title	Identification of pharmacogenomic variants associated with drug response and metabolism in the Mexican population
Resumen (como fue recibido) Abstract (as submitted)	Metabolism of endogenous and exogenous substances in the organism is mediated by multiple enzymes and transporters. More than 300 genes have been found to be involved in the absorption, distribution, metabolism, and excretion of drugs, xenobiotics, and other endogenous substances. Genetic variants that alter the function of these genes can modulate the rate at which these substances are processed and consequently influence the response of the individual, the effect of these drugs, and the response to treatments. The aim of this study is to identify known functional and potentially novel functional variants in genes of pharmacogenetic importance involved in drug and other substances metabolism. We will survey their frequencies in the Mexican population to better understand the impact of these variants in the response to common drugs prescribed to individuals of this population.

Fecha de Primer Contacto Date First Contact Made	12/04/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-08	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Claudia Gonzaga-Jauregui
Título del Proyecto	Identificación y análisis de repeticiones cortas en tándem y su variabilidad en genomas mexicanos
Project Title	Identification and analysis of short tandem repeats and their variability in Mexican genomes
Resumen (como fue recibido) Abstract (as submitted)	Short tandem repeats (STRs), also known as microsatellites, are regions of the genome that contain repetitive DNA sequences that involve a repetitive unit of 1-6 bp (Tautz et al., EXS 1993), forming series with lengths of up to 100 nucleotides (nt). STRs are widely found in prokaryotes and eukaryotes, including humans. By analyzing STRs, we can gain insight into genetic variation that can be used for a variety of applications, including forensic investigations, genetic ancestry testing and sample identification. However, most large-scale studies to characterize STRs have been conducted in Eurocentric populations, and not much is known of their variability in other and more diverse populations, such as the Mexican population. The aim of this study is to analyze and characterize STRs and their variability in the data from the Mexico City Prospective Study (MCPS) cohort.

Fecha de Primer Contacto Date First Contact Made	12/04/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-001-09	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Investigador(a) principal Principal Investigator	Dr Enrique Gomez-Figueroa
Título del Proyecto	Mortalidad por ictus y factores de riesgo en México
Project Title	Stroke mortality and risk factors in Mexico
Resumen (como fue recibido) Abstract (as submitted)	In the first decade of this century, information derived from hospital records and from some multicenter hospital studies in Mexico – the vast majority of which were cross-sectional design - allowed us to identify the main stroke risk factors, its clinical presentation, diagnostic tool approach, acute phase treatment, and in-hospital mortality. Two epidemiological pivotal studies carried out in the city of Durango, México, reported an incidence for a first ever stroke of 118/100,000; in-hospital mortality rate was 39% and the stroke prevalence of 7.7/1,000 inhabitants. Despite this important data, there are no longitudinal studies about stroke incidence related to demographic or cardiovascular risk factors, and much less derived from a cohort study. We aim to know the incidence of cerebrovascular disease and the sociodemographic variables associated with its appearance as lifestyles factors, cardiovascular risk factors, basal somatometric findings, primary or secondary stroke prevention measures taking information from the cohort named MCPS.

Fecha de Primer Contacto Date First Contact Made	19/01/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-005	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Adrian Soto-Mota
Título del Proyecto	Mortalidad entre diferentes niveles de LDL-C en personas sin otros factores de riesgo cardiovascular
Project Title	Mortality across different levels of LDL-C in people without other cardiovascular risk factors
Resumen (como fue recibido) Abstract (as submitted)	People with normal and low BMI have been identified as having a greater risk of presenting large LDL elevations during carbohydrate restriction. Simultaneously, low-carbohydrate diets have gained popularity for clinical purposes beyond weight control and the risk relevance of high LDL in the absence of other cardiovascular risk factors has been evaluated by a few studies without adjusting for other cardiovascular risk factors. We plan to evaluate the association of LDL with mortality across the BMI spectrum.

Fecha de Primer Contacto Date First Contact Made	01/02/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-008	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual Colaborativo/Collaboration Individual

Investigador(a) principal Principal Investigator	Dr Vicente Diego Ortega-Del Vecchyo
Título del Proyecto	Impacto de la selección natural actuando sobre nuevas variantes del MCPS
Project Title	Impact of natural selection acting on new variants on the MCPS
Resumen (como fue recibido) Abstract (as submitted)	Natural selection shapes the distribution of genetic variation and it varies according to the function of new mutations. Variants under natural selection can influence phenotypes of clinical interest and, therefore, it is important to understand how natural selection is acting on those genetic variants. I propose to investigate how natural selection is acting on new genetic variants that have a particular functional classification using information from allele frequencies that are encoded on a statistic known as the site frequency spectrum. Dr. Ortega-Del Vecchyo has wide experience on the analysis of the impact of natural selection using genomic information (Ortega-Del Vecchyo et al., Bioinformatics 2016; Ortega-Del Vecchyo et al., Genetics 2022). We are particularly interested in investigating if natural selection acts differently depending on the ancestry background of variants with the same functional classification. We will also test a new method developed by my group which infers the impact of natural selection using the ancestral recombination graph.

Fecha de Primer Contacto Date First Contact Made	16/03/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-011	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Yang Luo
Título del Proyecto	Tipificación HLA, diversidad y análisis de asociación en el Estudio Prospectivo de la Ciudad de México
Project Title	HLA typing, diversity, and association analysis in the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	Variations of human leukocyte antigen (HLA) genes in the major histocompatibility complex region (MHC) significantly play vital roles in our adaptive immune responses, and influence the risk of many immunological traits, including autoimmune diseases and cancer. The MHC locus is under strong selective pressure to constantly adapt to our ever-changing environment. Owing to population-specific positive selection, the MHC locus harbours unusually high sequence variation, longer haplotypes than most of the genome, and haplotypes that are specific to individual ancestral populations Consequently, the MHC locus is among the most challenging regions in the genome to analyse. Advances in HLA imputation based on genotyping array and HLA typing based on next-generation sequencing have enabled MHC association and fine-mapping studies at the single-gene and long-range haplotype level. We and others have shown that admixed populations with recent ancestry from two or more continents can facilitate rapid adaptive evolution by introducing novel variants and haplotypes at intermediate frequencies. This makes genetic discovery in admixed populations more powerful than in homogeneous ancestral populations. However, when compared to other continental populations, HLA diversity and its association with complex traits remain underexplored in Latin American populations. This makes MCPS a particularly suitable and valuable cohort for improving our understanding of HLA diversity, natural selection, and its disease asssociations. In this study, we propose to: 1. Infer accurate HLA alleles using both exome sequencing and whole-genome sequencing data from the MCPS. 2. Characterise HLA diversity within the MCPS and compare it to other global populations. 3. Study natural selection at the MHC locus in the MCPS. 4. Construct an MCPS HLA imputation reference panel to facilitate future HLA-disease studies in Mexico and in Latin America. 5. Conduct MHC-wide association and fine-mapping study for phenotypes included in the MCPS, such as diabetes, blood pressure and smoking. This work will be instrumental in understanding HLA and its association with complex traits both within Latin America and across global populations. The large effect sizes of the MHC region for a wide range of immune-mediated traits underscore the importance of defining HLA allelic effect sizes to build generally applicable clinical polygenic risk scores for many diseases. As the number of genome-wide genotyping by patients, both by healthcare providers and direct-to-consumer vendors, increases in Mexico and other South American countries, resources like the one we propose in this study will be essential for such applications.

Fecha de Primer Contacto Date First Contact Made	16/03/2023	País Country	Inglaterra/England
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-012	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Términos y Condiciones Internos/Internal T&Cs

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla
Título del Proyecto	Aprovechar la variación rara y la ascendencia global y local para desarrollar puntuaciones de riesgo poligénico para la diabetes tipo 2 en estadounidenses mestizos
Project Title	Leveraging rare variation, global and local ancestry to develop polygenic risk scores for type 2 diabetes in admixed Americans
Resumen (como fue recibido) Abstract (as submitted)	Polygenic risk scores (PRS) do not transfer well across different ancestries, especially in individuals of admixed ancestries due to their complex genetic architecture. In addition, the contribution of rare variation in PRS has not been evaluated in admixed ancestry populations. We propose to leverage multiple Latino cohorts available through the PRIMED consortium and external collaborators to implement and compare state-of-the-art methodologies to develop a PRS for the prediction of type 2 diabetes in admixed American individuals. We will use high-quality imputed genotypes generated through the TOPMed and the Mexico City Prospective Study (MCPS) reference panels. One set of cohorts, including the MCPS, will be used to estimate the type 2 diabetes (T2D) effect sizes of the genome-wide variants in the admixed American populations using methods that account for local and global ancestry approaches. The summary statistics will be used in a second independent set of cohorts to test the performance of the PRSs to predict T2D and complications, seeking to integrate rare and common genetic variants.

Fecha de Primer Contacto Date First Contact Made	07/06/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-021	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Osvaldo Máximo Mutchinick Baringoltz
Título del Proyecto	Desarrollo de un modelo de predicción de riesgo de mielomeningocele mediante un panel de secuenciación de genes candidatos en familias mestizas mexicanas
Project Title	Development of a risk prediction model for myelomeningocele using a candidate gene sequencing panel in Mexican mestizo families
Resumen (como fue recibido) Abstract (as submitted)	El mielomeningocele (MMC) es una malformación congénita que consiste en un defecto del cierre del tubo neural (DCTN), la forma más común y grave. En México la prevalencia es de ~1/1,000 recién nacidos vivos de acuerdo con el programa de Registro y Vigilancia Epidemiológica de Malformaciones Congénitas (RYVEMCE). Su etiología es multifactorial resultado de complejas interacciones genéticas y ambientales. Para investigar la genética del MMC, previamente realizamos un estudio multicéntrico en 300 familias tríos (caso afectado, madre y padre) por medio de la secuenciación (NGS) de 40 genes candidatos. Los resultados permitieron identificar patrones de asociación de variantes en un conjunto particular de genes (clústeres). A partir de estos hallazgos, nos hemos planteado el objetivo de desarrollar un modelo de predicción de riesgo mediante el estudio de un panel de genes que permita realizar predicciones personalizadas. Consideramos que la información genética de una población de referencia como la del MCPS nos ayudaría a establecer estimaciones del riesgo y desarrollar un modelo de utilidad clínica para parejas que han tenido descendencia con DCTN o aquellas que consideran futuros embarazos. Finalmente, con este enfoque esperamos contribuir al conocimiento de la genética de enfermedades complejas como los DCTN, y del MMC en particular.

Fecha de Primer Contacto Date First Contact Made	05/06/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-023	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Individual de Acceso Abierto/Open Access Individual

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Gary O'Donovan
Título del Proyecto	¿Cuáles son las asociaciones entre la "diabesidad" y la mortalidad en adultos en México? Hallazgos del estudio prospectivo de la Ciudad de
Project Title	What are the associations between 'diabesity' and mortality in adults in Mexico? Findings from the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	People living with 'diabesity' (obesity and diabetes) have been shown to be at high risk of mortality in previous studies. Given that these associations have been less explored in Latin American countries such as Mexico, the aims of the proposed research are to investigate the prevalence of diabesity and to investigate associations of the condition with mortality in Mexico. Cox proportional hazard regression adjusted for sociodemographic and lifestyle factors will be performed to investigate these associations. It is expected that individuals with diabesity will have a higher risk of mortality than their counterparts. Therefore, our research may support the implementation of targeted interventions in high-risk populations in Mexico.

Fecha de Primer Contacto Date First Contact Made	14/08/2023	País Country	Colombia/Colombia
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-026	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Investigador(a) principal Principal Investigator	Dr Gary O'Donovan
Título del Proyecto	Asociaciones entre el patrón de actividad física del "guerrero de fin de semana" y el deterioro cognitivo leve detectado en la pantalla: hallazgos del Estudio Prospectivo de la Ciudad de México.
Project Title	Associations between the 'weekend warrior' physical activity pattern and screen-detected mild cognitive impairment: findings from the Mexico City Prospective Study.
Resumen (como fue recibido) Abstract (as submitted)	Cross-sectional studies in high-income countries in the West suggest that the 'weekend warrior' physical activity pattern is associated with mental health benefits. The objective of the proposed research is to investigate associations between the weekend warrior physical activity pattern and mild cognitive impairment in adults in the Mexico City Prospective Study. The exposure will be leisure time physical activity. Those who exercise once or twice per week will be termed weekend warriors. Those who exercise more often will be termed regularly active. The outcome will be mild cognitive impairment, as assessed using the mini mental state examination screening tool. Potential confounders will include age, sex, education, blood pressure, smoking, body mass index, civil status, sleep, diet, and alcohol. Logistic regression will be used to investigate cross-sectional associations. Logistic regression or Cox regression will be used to investigate longitudinal associations. All analyses will be adjusted for potential confounders. Mild cognitive impairment often precedes dementia and there would be important implications for policy and practice if we were to find that exercising once or twice per week was associated with reduced risk of mild cognitive impairment.

Fecha de Primer Contacto Date First Contact Made	25/08/2023	País Country	Colombia/Colombia
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-027	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Dr Lorena Orozco
Título del Proyecto	Variantes genéticas asociadas a la respuesta al tratamiento de la diabetes tipo 2
Project Title	Genetic variants associated with the response to diabetes type 2 treatment
Resumen (como fue recibido) Abstract (as submitted)	Mexico has one of the highest prevalence of type 2 diabetes (T2D;18%). Oral hypoglycaemic drugs, such as metformin (MTF) or glibenclamide, are prescribed in 50% of Mexican patients with T2D. However, it is estimated that only 36% of Mexican patients present an adequate therapeutic response. Current pharmacogenetic studies that include the Latin American population have been mainly focused on SLC transporters, involved in the pharmacokinetics of MTF, leaving aside other relevant genes. Actually, few studies have included genes responsible of the metabolism of other hypoglycaemic drugs. Since non-glycemic control increases the risk of developing associated comorbidities, to dilucidate the factors influencing the response to the T2D treatment is imperative. Thus, the aim of the present proposal is to determine the genetic variants associated with non-glycemic control in patients with T2D, treated with different hypoglycemic drugs.

Fecha de Primer Contacto Date First Contact Made	25/08/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-028	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional Colaborativo/Collaboration Institutional

Investigador(a) principal Principal Investigator	Dr Catalina Medina Garcia
Título del Proyecto	¿Existen asociaciones en forma de U entre el colesterol HDL y las subclases de colesterol HDL con la mortalidad? Un análisis de más de 40.000 participantes en el Estudio Prospectivo de la Ciudad de México
Project Title	Are there U-shaped associations of HDL-cholesterol and HDL-cholesterol subclasses with mortality? An analysis of more than 40,000 participants in the Mexico City Prospective Study
Resumen (como fue recibido) Abstract (as submitted)	Large studies suggest that associations between high-density lipoprotein cholesterol (HDL-C) and mortality are U-shaped, with both low and very high levels being associated with increased risk. However, there are no such studies in Latin America. The main objective of the proposed research is to investigate whether there are U-shaped associations between HDL-C concentration and mortality in adults in the Mexico City Prospective Study. The secondary objective is to investigate whether there are U-shaped associations between HDL-C subclasses and mortality. The exposures will be HDL-C concentration and small, medium, large, and very large HDL-C subclasses. The outcomes will be all-cause, cardiovascular disease, and cancer mortality. Potential confounders will include age, sex, triglycerides concentration, LDL-cholesterol concentration, cholesterol medication, blood pressure, diabetes, socioeconomic status, smoking, alcohol, diet, body mass index, and physical activity. There would be profound implications for policy and practice in Mexico if we were to find U-shaped associations between HDL-C and mortality. In particular, it would imply that it was no longer appropriate to continue to emphasise raising HDL-C in the primary prevention of chronic disease.

Fecha de Primer Contacto Date First Contact Made	07/09/2023	País Country	México/Mexico
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-029	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Institucional de Acceso Abierto/Open Access Institutional

Solicitudes de colaboración con EPCM y solicitudes de datos de acceso abierto con acuerdos firmados vigentes
MCPS collaboration and open-access data requests with signed agreements in place

Last updated 26th February 2024

Mexico City Prospective Study
Estudio Prospectivo de la Ciudad de México

Investigador(a) principal Principal Investigator	Prof Peter Visscher
Título del Proyecto	Estimación de diferencias genéticas entre ascendencias a partir del análisis de datos familiares en una población mixta
Project Title	Estimation of between-ancestry genetic differences from analysis of family data in an admixed population
Resumen (como fue recibido) Abstract (as submitted)	Our proposal is to exploit the segregation of ancestry proportions within families in an admixed population. If a population is admixed and the founder populations differ in their genetic means, then that creates extra genetic variation relative to a non-admixed population. Within families, siblings will differ in the proportions of ancestral population proportions. This information can be used to estimate variance due to between-population mean genetic differences for complex traits. The use of genetic markers within nuclear families allows estimation of ancestry proportions and identity-by-descent proportions among sibling pairs and can obtain unbiased estimates of genetic effects by effectively conditioning on parental genotypes. We propose to use a large sample of siblings from MCPS and estimate within-family variance and between-population variance simultaneously. Peter Visscher is a leading expert in resolving the genetic architecture of complex traits and has pioneered analytical approaches to estimate genetic variation within families from a homogeneous population (Visscher et al. 2006, PLOS Genetics; Visscher et al. 2007, American Journal of Human Genetics; Hemani et al. 2013, American Journal of Human Genetics; Sidorenko et al. 2023, Nature Genetics, under re-review).

Fecha de Primer Contacto Date First Contact Made	07/12/2023	País Country	Inglaterra/England
ID de Solicitud de Datos de EPCM MCPS Data Request ID	2023-036	Tipo de Acuerdo de Intercambio de Datos Type of Data Sharing Agreement	Términos y Condiciones Internos/Internal T&Cs