

DRAFT TERMS OF REFERENCE

Strengthening Technical and Human Capacities for Genomics Services Exports

UR-T1119

INDIVIDUAL CONSULTANT: “Specialist in Statistical Genomics”

I. Background

Technology and scientific Research and Development (R&D) are transforming traditional healthcare services, allowing disruptive innovations to better suit medical and preventive treatments to patients, thus improving people’s lifestyles and health. One such advancement is occurring in the area of Genomic Medicine (GM), a specific segment of what is known today as the field of Personalized Medicine (PM), which involves the sequencing of a human genome and the use of that information to prevent, diagnose and treat complex diseases.

The general objective of the project is to develop local capacity in Uruguay for the analysis of human genomic sequences, both in research and support for genomic medicine and scientific development of new products and technologies.

II. Objective

The main objective of this consultancy is to: (a) Analyze data generated by the project, in addition to develop the research lines to be followed during the completion of the project; (b) Provide technical advice for the core members involved in the project; and (c) Develop and teach a course on prediction methods.

III. General Information

- Title: Statistical approaches for high-dimensional human data exploration
- Project Number: UR-T1119 (Component I)
- Duration: 4 months.
- Post of Duty: Uruguay
- Contract to be awarded: Individual

IV. Scope of Services

In order to achieve the above mentioned objectives, this consultancy will comprise the following tasks:

- Analyze data generated by the project.
- Develop the research lines to be followed during the completion of the project.

- Provide technical advice for the core members involved in the project.
- Develop and teach a course on prediction methods.

This scope of work may be expanded or modified at the discretion of IDB to focus specific factors or include other assignments.

V. Requirements

Individual Consultants interested in performing these services must exhibit relevant experience in the area of Statistical Genomics. In order to perform this consultancy services, the following specific requirements/conditions must be met:

- Specialist in Statistical Genomics.
- Strong publication log in this particular area.
- Strong background in statistical genomics, particularly in developing methods for the usage of high-dimensional data as predictors of animal/human traits. At least 5 years of proven experience in this area.
- Proven work experience with Statistical Genomics, in particular in the context of prediction methods applied to genomics data.

In addition, the following core competencies will be required:

- Experience with human data.

VI. Description of Deliverables

In order to achieve the objectives, the consultant must comply with the following deliverables:

- Provide the Research lines to be followed during the completion of the project.
- Monthly status update with the results of the :
 - *Analyzed data generated by the project.*
 - *Technical advice for the core members involved in the project.*
- Provide and teach a course on prediction methods.

VII. Payment Schedule

- 20% upon approval of the course on prediction methods.
- 20% upon approval of the Research lines to be followed during the completion of the project.

- 15% upon approval of each monthly update report.

VIII. Coordination

This consultancy will be coordinated and supervised by the team leader of the operation UR-T1119.

DRAFT TERMS OF REFERENCE

Strengthening Technical and Human Capacities for Genomics Services Exports

UR-T1119

INDIVIDUAL CONSULTANT: “Specialist in Biological Anthropology”

I. Background

Technology and scientific Research and Development (R&D) are transforming traditional healthcare services, allowing disruptive innovations to better suit medical and preventive treatments to patients, thus improving people’s lifestyles and health. One such advancement is occurring in the area of Genomic Medicine (GM), a specific segment of what is known today as the field of Personalized Medicine (PM), which involves the sequencing of a human genome and the use of that information to prevent, diagnose and treat complex diseases.

The general objective of the project is to develop local capacity in Uruguay for the analysis of human genomic sequences, both in research and support for genomic medicine and scientific development of new products and technologies.

II. Objective

The main objective of this consultancy is to: (a) Be responsible of anthropological advice during phase 1 and 2 of the project, helping in the process of sampling definition, sampling collection, analysis and report; (b) Provide Specific technical advice in anthropology for the core members involved in the project; and (c) Provide the anthropological conclusions of the project.

III. General Information

- Title: Uruguayan population: integrating the historical record with full genomic information.
- Project Number: UR-T1119 (Component I)
- Duration: 4 months.
- Post of Duty: Uruguay
- Contract to be awarded: Individual

IV. Scope of Services

In order to achieve the above mentioned objectives, this consultancy will comprise the following tasks:

- Anthropological advice during phase 1 and 2 of the project, helping in the process of sampling definition, sampling collection, analysis and report;
- Specific technical advice in anthropology for the core members involved in the project. He will also participate and contribute in a course on human genomics.
- Provide the anthropological conclusions of the project.

This scope of work may be expanded or modified at the discretion of IDB to focus specific factors or include other assignments.

V. Requirements

Individual Consultants interested in performing these services must exhibit relevant experience in the area of Biological Anthropology. In order to perform this consultancy services, the following specific requirements/conditions must be met:

- Specialist in Biological Anthropology.
- Strong publication log in this particular area.
- Strong background in biological anthropology, especially in the process of Uruguayan population formation. At least 5 years of proven experience in this area.
- Proven work experience in genomics data applied to ancestry in Uruguayan and Latin-American population.

VI. Description of Deliverables

In order to achieve the objectives, the consultant must comply with the following deliverables:

- Monthly status update with the results of the :
 - *Anthropological advice during phase 1 and 2 of the project, helping in the process of sampling definition, sampling collection, analysis and report*
 - *Specific technical advice in anthropology for the core members involved in the project*
- Provide the anthropological conclusions of the project.

VII. Payment schedule

- 20% upon approval of each monthly update report.
- 20% upon approval of the anthropological conclusions of the project.

VIII. Coordination

This consultancy will be coordinated and supervised by the team leader of the operation UR-T1119.

DRAFT TERMS OF REFERENCE

Strengthening Technical and Human Capacities for Genomics Services Exports

UR-T1119

INDIVIDUAL CONSULTANT: “Specialist in Medical Genomics”

I. Background

Technology and scientific Research and Development (R&D) are transforming traditional healthcare services, allowing disruptive innovations to better suit medical and preventive treatments to patients, thus improving people’s lifestyles and health. One such advancement is occurring in the area of Genomic Medicine (GM), a specific segment of what is known today as the field of Personalized Medicine (PM), which involves the sequencing of a human genome and the use of that information to prevent, diagnose and treat complex diseases.

The general objective of the project is to develop local capacity in Uruguay for the analysis of human genomic sequences, both in research and support for genomic medicine and scientific development of new products and technologies.

II. Objective

The main objective of this consultancy is to: (a) Analyze Uruguayan capacities in Medical Genomics, providing a report with key lines and actions to further strength and to develop research and companies in this field; and (b) Provide guidance to young researchers and entrepreneurs with related projects.

III. General Information

- Title: Medical Genomics: integrating basic and applied research.
- Project Number: UR-T1119
- Duration: 2 months.

- Post of Duty: Uruguay
- Contract to be awarded: Individual

IV. Scope of Services

In order to achieve the above mentioned objectives, this consultancy will comprise the following tasks:

- Analyze Uruguayan capacities in Medical Genomics, providing a report with key lines and actions to further strength and to develop research and companies in this field:
- Provide guidance to young researchers and entrepreneurs with related projects:

This scope of work may be expanded or modified at the discretion of IDB to focus specific factors or include other assignments.

V. Requirements

Individual Consultants interested in performing these services must exhibit relevant experience in the area of Medical Genomics. In order to perform this consultancy services, the following specific requirements/conditions must be met:

- Specialist in Medical Genomics.
- Strong publication log in this particular area.
- Strong background in Medical Genomics, particularly targeting diseases like cancer or others with high impact in Uruguayan health. At least 5 years of proven experience in this area.
- Proven work experience in particular with the NGS technology for human data.

VI. Description of Deliverables

- Provide a Report Guidance to foster the Medical Genomics in Uruguay
- Prepare two diffusion activities (meetings)
- Provide 20 hours of personal advice.

VII. Payment schedule

- 50% upon approval of the Report Guidance to foster the Medical Genomics in Uruguay.
- 25% upon approval of the diffusion activities.
- 25% upon approval of the accomplishment of the 20 hours of personal advice.

VIII. Coordination

This consultancy will be coordinated and supervised by the team leader of the operation UR-T1119.

DRAFT TERMS OF REFERENCE

Strengthening Technical and Human Capacities for Genomics Services Exports.

UR-T1119

INDIVIDUAL CONSULTANT: “Specialist in IT”

I. Background

Technology and scientific Research and Development (R&D) are transforming traditional healthcare services, allowing disruptive innovations to better suit medical and preventive treatments to patients, thus improving people’s lifestyles and health. One such advancement is occurring in the area of Genomic Medicine (GM), a specific segment of what is known today as the field of Personalized Medicine (PM), which involves the sequencing of a human genome and the use of that information to prevent, diagnose and treat complex diseases.

The general objective of the project is to develop local capacity in Uruguay for the analysis of human genomic sequences, both in research and support for genomic medicine and scientific development of new products and technologies.

II. Objective

The main objective of this consultancy is to: (a) Be responsible of hardware definition, to establish security policies, granting data accession, uploading and sharing and any other issues related to data storage; and (b) Follow and monitoring the project implementation during the first year, providing advice if required.

III. General Information

- Title: Best approaches to deal with massive human genomic data.
- Project Number: UR-T1119
- Duration: 12 months.
- Post of Duty: Uruguay
- Contract to be awarded: Individual

IV. Scope of Services

In order to achieve the above mentioned objectives, this consultancy will comprise the following tasks:

- Be responsible of hardware definition, to establish security policies, granting data accession, uploading and sharing and any other issues related to data storage:
 - The consultant will provide advice in the best available options to store the data generated during the project. In addition to the massive amount of data, security, sharing, and other especially awkward issues arise, given the kind of data to manage.
- Follow and monitoring the project implementation during the first year, providing advice if required.

This scope of work may be expanded or modified at the discretion of IDB to focus specific factors or include other assignments.

V. Requirements

Individual Consultants interested in performing these services must exhibit relevant experience in the area of IT Services. In order to perform this consultancy, the following specific requirements/conditions must be met:

- IT specialist (systems administration).
- Strong background. At least 5 years of proven experience in management of network storage systems.
- Proven work experience in designing, building and maintaining large storage infrastructures.
- General understanding of distributed environments based on UNIX-TCP/IP.
- Relevant understanding on data redundancy, security and accessibility.

VI. Description of Deliverables

- Provide an Executive Summary.
- Monthly status updates to project team leader.

VII. Payment schedule

- 50% upon approval of the Executive Report.
- 50% upon approval of the final status Report.

VIII. Coordination

This consultancy will be coordinated and supervised by the team leader of the operation UR-T1119.