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ERA Long-Term Research Fellowship Project

DESCaRTES

Project's key info

Title of the project	DIabetes screening in kidney transplant candidates with a Glucose loading tEST (DIGEST 2.0)
Working Group involved in the project	DESCaRTES
Principal Investigator(s) of the project	Rachel Hellemans , Adnan Sharif
Duration	12 months (6 in Belgium + 6 in UK)
Fellowship Grant	35.776,00 €
Start of the fellowship	Within 6 months after notification of the grant award to the fellow

Receiving Institute

Name of receiving institute	Antwerp University hospital and University Hospitals Birmingham
Supervisor's name	Rachel Hellemans and Adnan Sharif
Supervisor's e-mail address	Rachel.hellemans@uza.be, adnan.sharif@uhb.nhs.uk

Project's detailed description

Project description
The DIGEST 2.0 study is a prospective, multicenter diagnostic project led by the ERA Descartes Working Group, aiming to improve the screening and detection of diabetes and prediabetes in kidney transplant candidates. Early and accurate identification of dysglycemia in this high-risk population is essential to enable timely interventions, guide lifestyle modifications, and better anticipate post-transplant metabolic complications. Screening for diabetes in patients with advanced kidney disease is challenging, as commonly used tests such as fasting plasma glucose and HbA1c often underestimate true glycemic status due to kidney failure–related physiological changes. Although international guidelines recommend the oral glucose tolerance test (OGTT) as the gold standard for screening in transplant candidates, its use in routine practice remains limited because it requires fasting, interferes with dialysis schedules, and is time-consuming. To address these barriers, the DIGEST programme explores a simpler, more practical alternative. Building on the promising results of the DIGEST 1.0 pilot study, DIGEST 2.0 evaluates a non-fasting 75 g Glucose Loading Test (GLT) that can be completed within one hour. The study investigates whether increasing the glucose load from 50 g to 75 g improves diagnostic sensitivity while maintaining feasibility. In this study, 258 kidney transplant candidates without known diabetes will undergo both the modified GLT and the standard 75 g OGTT, as well as HbA1c measurement, within a six-week

period. The primary outcome is the diagnostic accuracy of the 1-hour GLT compared with the OGTT for detecting dysglycemia. Secondary objectives include evaluating a 2-hour GLT, assessing the performance of HbA1c, determining the optimal HbA1c cut-off, and exploring mechanisms of glucose dysregulation using indices of insulin resistance and beta-cell function.

Recruitment will take place across multiple European transplant centres affiliated with ERA Descartes board members, with enrolment expected to be completed within approximately 12 months. The fellow will be hosted at the Antwerp University Hospital and the Queen Elizabeth Hospital Birmingham, working within a strong international network of experts in transplantation and diabetes.

Overall, DIGEST 2.0 aims to provide robust evidence for a practical, patient-friendly diabetes screening strategy in kidney transplant candidates, with the potential to improve pre-transplant risk assessment and post-transplant outcomes.

Goals of the project

The project aims at:

1. Coordinating and supporting the execution of an ongoing multicenter, international diagnostic study focused on diabetes screening in kidney transplant candidates.

2. Evaluating the diagnostic performance of the Glucose Loading Test (GLT) and HbA1c for the detection of dysglycemia, with direct relevance for improving clinical screening strategies.

3. Advancing understanding of the epidemiology and metabolic mechanisms underlying glucose disorders in patients with advanced kidney disease.

4. Ensuring high-quality data management, statistical analysis, and interpretation using established analytical tools.

5. Producing a peer-reviewed scientific publication, with the fellow acting as first author of the final study report.

6. Strengthening international and interdisciplinary collaboration within the ERA-DESCARTES Working Group.

7. Supporting the fellow's professional development through hands-on experience in project coordination, communication, and research management.

8. Fostering the fellow's integration into the international nephrology and transplantation research community through active participation in meetings, workshops, and conferences.

Qualifications and/or expertise required to the fellow

- Prior clinical experience with cardiovascular risk management of kidney transplant candidates and recipients, as well as a background in clinical epidemiology, is highly desirable.
- Applicants should possess a basic working knowledge of data analysis programs such as R, SPSS (and GraphPad).
- Proficiency in English at a professional working level is essential for effective communication and collaboration. Proficiency in additional languages would be considered an asset.
- Candidates with published research or previous contributions to nephrology or transplantation studies will be given preference.
- Strong analytical and problem-solving skills, along with the ability to work collaboratively within a multidisciplinary team, are important attributes for this role.