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SECTION 1

ROLE OVERVIEWVIEW

Job title: Quality Assurance Analyst (AAKTP Associate)

Vacancy reference: RID/PJ10101724-01/24

Department:

Research, Innovation and Development

Based at: The Source Plus

Nairobi, Kenya

Both administrative and Operational Offices.

With occasional local field visits to Kitui, Baringo, Kajiado

and Embu

Job type:

Fixed term - 24 months

With 12- or 24-months contract renewal

Hours of work: 40 hours per week, normally worked Monday to Friday

(Minus Bank Holidays)

Salary details: 0800hrs -1700hrs

Salary range between £10,000 - £13,000 per annum,

dependent upon qualifications and experience, plus £2000

per Annum development budget

Supervisor: Bronson Eran'ogwa
Line Manager:

Job title: Research & Development Director

Start date: 28th, February 2024

Closing date for applications: 30th, March 2024 at 12:00 A.M (East Africa Time)

Expected Interview dates: 30th, April 2024 - 2nd, May 2024

(Tentatively)







SECTION 2

ABOUT THE UNIVERSITY OF NAIROBI

The University of Nairobi, a body corporate established by an Act of Parliament Cap 201 of the Laws of Kenya is a pioneer institution of University education in Kenya and the region.

The only institution of higher learning in Kenya for a long time, the University of Nairobi responded to the national regional and Africa's high level manpower training needs by developing and evolving strong, diversified academic programmes and specialisations in sciences, applied sciences, technology, humanities, social sciences and the arts. To date, the range of programmes offered number approximately two hundred.

ABOUT CRANFIELD UNIVERSITY

Cranfield's world-class expertise, large-scale facilities and unrivalled industry partnerships is creating leaders in technology and management globally. Find out more about our unique impact, and our vision, mission and values here.

We aim to create and maintain a culture in which everyone can work and study together and realise their full potential. We are a Disability Confident Employer and proud members of the Stonewall Diversity Champions Programme. We are committed to actively exploring flexible working options for each role and have been ranked in the Top 30 family friendly employers in the UK by the charity Working Families. Find out more about our key commitments to Equality, Diversity and Inclusion and Flexible Working here.







SECTION 3

ABOUT THIS KTP PARTNERSHIP

This KTP partnership is formed of, The University of Nairobi, Cranfield University and The Source Plus, and is funded by UK Research and Innovation through Innovate UK, as part of the UK government's Industrial Strategy.

This partnership received financial support from the African Agriculture Knowledge Transfer Partnerships (AAKTP) programme. AAKTP aims to help The Source Plus to improve their competitiveness and productivity through leveraging use of knowledge, technology and skills. Funded by UK Research and Innovation through Innovate UK, this successful African Agriculture Knowledge Transfer Partnership project, is part of the UK government's Industrial Strategy.

ABOUT THE SOURCE PLUS (TSP)

The Source Plus works closely with small-scale farmers in rural regions of Kenya. We source sustainably produced honey and ensure transparency across the value chain through use of a blockchain traceability system. TSP offers two main products: honey itself and a traceability service for honey.

In addition to their current offerings, TSP plans to expand by developing a Certification process for farmers in Kenya, ensuring the export of high-quality and safe honey product. Through the integration of advanced technology and establishment of a Knowledge Centre of Excellence for platform, TSP seeks to enhance efficiency, accuracy, and compliance within the honey industry. This expansion aims to further support small-scale farmers, enhance traceability systems and quality control processes, and ensure compliance with regulatory requirements, particularly for international markets.







We plan to expand our offering as a result of the embedded capability from this project, developing Certification of farmers in process: we are pursuing establishing a Knowledge Centre of Excellence for laboratory services which this project will support.

TSP's objectives are to:

- Support small-scale farmers and honey businesses in accessing international markets by complying with SPS requirements.
- Establish a traceability system and quality control process.
- Establish an assurance process and framework to ensure systematic efforts are taken to deliver a product that meets regulatory requirements.

To learn more about The Source Plus kindly visit our website: https://thesourceplus.org/







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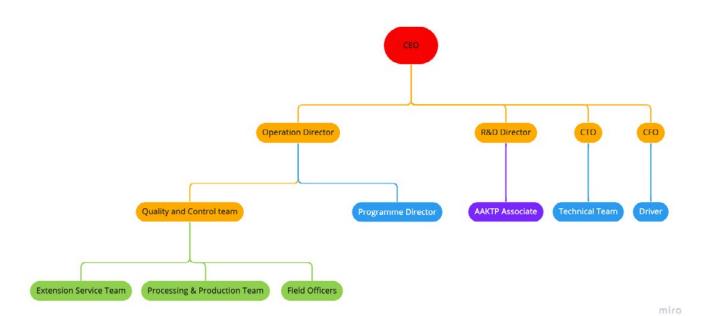
REPORTING LINES

You are Purple.

Directly reporting to R & D Director.

Other Reporting lines Orange and

Red (when required)









SECTION 4

JOB DETAILS: JOB PURPOSE

As an AAKTP Associate, you will mainly be based at The Source Plus at Nairobi, with occasional local field visits to Kitui, Baringo, Kajiado and Embu. The aim of the KTP is to integrate advanced pesticide monitoring technology into The Source Plus's operations, enhancing product quality, ensuring compliance with regulatory standards, and access to new markets, offering safer and more reliable honey and bee products to customers.

In this role you will primarily be responsible for integrating advanced pesticide monitoring technology into The Source Plus's operations, thereby improving product quality, ensuring adherence to regulatory standards, and expanding market access for their honey and bee products. Your key tasks will include:

- Collaborating with The Source Plus team to understand their current processes and needs regarding pesticide monitoring and quality assurance.
- Implementing and managing the integration of advanced pesticide monitoring technology, such as Surface Enhanced Raman Spectroscopy (SERS), into the organisation's operations.
- Conducting training sessions and providing support to The Source Plus staff to ensure effective utilization of the new technology.
- 4. Collaborating with external partners, including researchers and technology providers, to stay updated on the latest advancements in pesticide monitoring technology and identify opportunities for further improvement.







- 5. Analyzing data generated by the monitoring technology to identify trends, potential risks, and areas for optimization.
- Working closely with regulatory bodies to ensure compliance with local and international standards for honey and bee products.
- Conducting regular assessments and reviews to ensure that the
 developments made through the project align with The Source
 Plus's commercial objectives and contribute to its long-term
 growth and sustainability.

Overall, your role as an AAKTP Associate will be instrumental in driving the successful integration of technology into The Source Plus's operations, ultimately leading to the delivery of safer, higher-quality honey and bee products to customers while supporting the organisation's strategic goals and objectives. You will also need to understand that the developments that are made through this project will need to be sense-checked to ensure they make commercial sense.

KEY DELIVERABLES

1

NO. DESCRIPTION OF DELIVERABLES

% OF

Delivery and management of research and knowledge translation (KT) tasks

- Allocate a significant portion of your time to overseeing and executing research activities related to the integration of advanced contaminants monitoring technology into The Source Plus's operations.
- Perform applied research in the designated area (honey contaminants, honey market/ honey value chain) to drive innovation and improvement within the organisation.
- Manage knowledge translation tasks to ensure that research findings are effectively communicated and implemented within the organization.







Delivery and management of research and knowledge translation (KT) tasks

- Disseminate research findings by publishing high-quality journal articles and conference papers.
- Raise individual and The Source Plus's profile through authoring and submission of articles to high impact and reputable peer-reviewed science journals and other industry publications.
- Ensure that publications contribute to the dissemination of knowledge and advancements in the field of pesticide monitoring technology and honey production, further enhancing The Source Plus's reputation as a leader in the industry.
- Attend and present in local and international conferences

PROJECT MANAGEMENT

Day-to-Day Management

- Oversee the project's daily operations, ensuring that tasks are being executed according to schedule and within budget.
- Coordinate with team members to assign responsibilities, track progress, and address any issues or challenges that may arise.
- Maintain clear communication channels to facilitate collaboration and ensure alignment with project objectives.
- Monitor key performance indicators (KPIs) to track the project's progress and identify areas for improvement.

Stakeholder Communication

- Disseminate regular project updates to relevant stakeholders, including The Source Plus team, project partners, funding agencies, and regulatory bodies.
- Provide timely information on project milestones, achievements, and challenges, keeping stakeholders informed and engaged throughout the project lifecycle.
- Address stakeholder feedback and concerns, seeking input and collaboration to ensure project success.







 Facilitate meetings, workshops, and presentations as needed to foster communication and collaboration among stakeholders.

Risk Management

- Identify potential risks and uncertainties that may impact project delivery, assessing their likelihood and potential impact.
- Develop risk mitigation strategies to proactively address and mitigate identified risks, ensuring project continuity and success.
- Monitor and review risk factors regularly, adapting strategies as needed to effectively manage emerging challenges.

Resource Allocation

- Manage project resources, including budget, personnel, equipment, and materials, to optimize efficiency and effectiveness.
- Ensure that resources are allocated appropriately to support project activities and meet established timelines and deliverables.
- Identify opportunities for resource optimization and cost savings, seeking to maximize the project's value within available resources.

Documentation and Reporting

- Maintain accurate project documentation, including plans, schedules, reports, and correspondence, to support transparency and accountability.
- Generate regular progress reports detailing project achievements, challenges, and next steps, providing stakeholders with visibility into project status and performance.
- Document lessons learned and best practices throughout the project lifecycle, facilitating knowledge transfer and continuous improvement.

COST-BENEFIT ANALYSIS

Identify Costs and Benefits

 Work closely with The Source Plus senior team to identify all relevant costs associated with implementing the advanced pesticide monitoring technology, including initial investment costs, ongoing operational







expenses, and any additional training or support requirements.

 Similarly, identify the potential benefits that the technology integration is expected to bring to The Source Plus, such as improved product quality, enhanced regulatory compliance, access to new markets, and potential cost savings or revenue increases.

Quantify Costs and Benefits

- Quantify the identified costs in terms of monetary values, ensuring accuracy and completeness in estimating both initial and ongoing expenses.
- Similarly, quantify the expected benefits in monetary terms wherever possible, utilizing relevant data and projections to estimate potential revenue gains, cost reductions, or other financial impacts associated with the technology implementation.

Sensitivity Analysis

 Conduct sensitivity analysis to assess the impact of variations in key assumptions or variables on the project's NPV and ROI. This helps to identify potential sources of uncertainty and risk, allowing for more informed decision-making.

Presentation of Findings

- Prepare a comprehensive cost-benefit analysis report, summarizing the key findings, assumptions, and methodologies used.
- Present the findings to The Source Plus senior team, highlighting the
 potential financial implications of implementing the technology and making
 recommendations based on the analysis.

PERSONAL DEVELOPMENT AND KNOWLEDGE BASE, AND ORGANISATION, INDUCTION

Personal Development and Knowledge Base

Continuous Learning

- Actively engage in ongoing learning and professional development activities related to your role and the objectives of the KTP project.
- · Stay updated on advancements in pesticide monitoring technology, honey







production practices, and relevant industry standards through participation in workshops, seminars, and training programs.

Skill Enhancement

- Identify areas for skill development that align with the goals of The Source Plus and the KTP project, such as project management, data analysis, or stakeholder communication.
- Seek opportunities to enhance your skills through hands-on experience, mentorship, and online courses or certifications.

Knowledge Sharing

- Share acquired knowledge and expertise with colleagues at The Source Plus, fostering a culture of continuous learning and improvement within the organization.
- Collaborate with team members to develop best practices and innovative solutions to challenges encountered during the project.

Networking

- Build professional relationships with industry experts, researchers, and other stakeholders involved in the field of honey production and pesticide monitoring.
- Attend relevant networking events, conferences, and forums to exchange ideas, gain insights, and expand your professional network.

Organisation Induction

Familiarization with Policies

- Familiarize yourself with The Source Plus's environmental sustainability, ethical, and health and safety policies, ensuring compliance with relevant regulations and guidelines.
- Seek guidance from The Source Plus senior team members or designated personnel to understand the organization's values, mission, and strategic priorities.

Onboarding Process

 Participate in the organization's onboarding process, which may include orientation sessions, introductions to key personnel, and access to







relevant resources and documentation.

 Clarify any questions or concerns regarding organizational policies and procedures, seeking support as needed to ensure a smooth transition into your role.

Integration into Team

- Integrate yourself into The Source Plus team by actively participating in team meetings, collaborating on projects, and contributing to team goals and objectives.
- Build positive working relationships with colleagues and stakeholders, demonstrating professionalism, respect, and a commitment to shared success.

By focusing on personal development activities and aligning with The Source Plus's organizational values and policies, you contribute to the effective operation of The Source Plus, ensuring that KTP activities comply with all relevant environmental sustainability, ethical and health and safety policies of The Source Plus and Cranfield University.

Please be advised that the percentages allocated for the key deliverables may be adapted to take into account the needs of The Source Plus and / or University.

PLANNING AND ORGANISING

A detailed project plan will be produced by you by the end of the first month of commencing the appointment, based on the project needs and higher-level guidance from line management and the industrial and academic supervisors. You will be responsible for monitoring and delivering this plan and reporting accordingly.

The role is challenging and involves planning, integrating and coordinating diverse responsibilities with The Source Plus, research, project management and training. You will be self-directed and well organised. You should be able to develop a forward research plan and have excellent project and time management skills, ensuring that milestones and deliverables are achieved to time and to high quality.







Short Time Scales (Days-Weeks):

- Immediately focus on understanding the research needs and requirements of The Source Plus.
- Develop research approaches aligned with the customer's needs, ensuring that methodologies are practical, feasible, and tailored to the project's objectives.
- Establish a clear plan for short-term tasks and milestones,
 prioritizing activities based on urgency and importance.

Medium Time Scales (Weeks-Months):

- Evaluate and assess proposed techniques, ensuring they align with project goals and deliverables.
- Propose new ideas or modifications to existing research approaches to address emerging challenges or opportunities.
- Collaborate with identified partners and stakeholders, establishing and nurturing relationships to support project objectives.
- Explore opportunities to expand the project's reach by establishing links with new customers, if permitted by The Source Plus.

Long Time Scales (Months):

 Contribute to the long-term research and business development strategies of The Source Plus, aligning activities with the organization's goals and objectives.







- Engage in ongoing research activities, ensuring progress towards project milestones and deliverables.
- Allocate time for writing and submitting reports, papers, and other deliverables to high-quality peer-reviewed journals and conferences.
- Monitor progress and adjust plans as needed to stay on track with long-term objectives and timelines.

Flexibility and Adaptability:

- As different tasks will require different time periods for planning, flexibility and good coordination skills will be important.
- Remain flexible and adaptable to changes in project timescales, deliverables, or requirements, seeking approval from the Local Management Committee (LMC) for any significant deviations from the original plan.
- Continuously monitor and evaluate project progress, identifying areas for improvement and adjusting plans accordingly to ensure timely and high-quality delivery of outcomes.

Regular Meetings and Communication:

- Regular meetings with the supervisory team are expected on weakly basis to provide updates on progress, discuss challenges, and seek guidance.
- Maintain open communication channels with all stakeholders, including project partners, collaborators, and funding agencies, to ensure alignment and transparency throughout the project.







COMMUNICATING AND INFLUENCING

You are required to communicate effectively with the partner team, academics, and support staff using verbal, written and visual communication. Consequently, you are required to have effective communication skills (written, verbal and visual) along with active listening, persuading and empathising skills.

The communication of work is expected to influence The Source Plus and stakeholders decision-making processes, strategic directions, as well as relationships with industrial partners and their clients.

Often, this will involve communicating highly complex information to an audience with differing levels of technical awareness.

You will be expected to be able to articulate information about your work in a clear and concise manner and to discuss problems constructively with your line manager and colleagues.

PROBLEM SOLVING

Problem-solving will be a central aspect of the research undertaken, encompassing planning, designing, implementation of experiments and throughout the project lifecycle.

You will be expected to be pro-active and resolve most problems using accumulated experience. You will have the support of the research team, group, department and school for complex issues.

DECISION MAKING

I) Decisions you will take without reference to others







There will be many opportunities for decisions to be taken with reference to others, however, you are expected to perform independently and conduct day-to-day activities without any supervision, following the project work plan and demonstrate initiatives to implement it, including identification of project risks and mitigation measures. Some other examples include:

- Day-to-day management and planning of activities within the overall specifications provided by the project terms of reference / proposal and/or other frameworks.
- Draft delivery of high-quality reports and materials to deadline and quality.
- Actively participating in the implementation of health and safety procedures in the areas in which you work.

II) Decisions you will refer to your manager/colleagues.

Overall research direction in the project and your role within the project, relationship development with industry, and cross project collaboration opportunities will be referred to the manager and/or colleagues. Other examples include:

- Decisions that involve modifications to contracted deliverables /
 Contractual implications and research advances.
- Developing new ideas / Submission and approval of new proposals to the customer
- Approval of reports and risk assessments
- Attendance at conferences







- Submissions of papers to conferences and journals
- Balancing ongoing commitments, project management and other activities.
- Activities to enable the dissemination and exploitation of activities.
- Financial approval / budgetary issues.

GUIDING FRAMEWORK

This post will be governed by the detailed AAKTP project proposal jointly prepared by the academic and industry partners, which will outline the tasks, milestones and deliverables related to the project.

Performance Management will be managed jointly and in partnership with the organisation, in line with the university policies and procedures.

You can expect close support from the line manager in research, career development, mentoring, project management and publications/proposals.

The role will be subject to normal school and university systems and procedures, as well as those of The Source Plus. A very high emphasis is placed in particular on conformity with health and safety, environmental and ethical policies of the University.

You need to work within the context of established The Source Plus, University and School administrative and health & safety structures, ensuring that the activities remain compliant with academic, administrative and safety procedures. There are occasions when existing procedures may not cover new circumstances and where







you need to work collaboratively with colleagues to develop new processes for the future.

You must respect the fundamental code of conduct for academic and scientific work. You may be privy to confidential information, and it is imperative that absolute discretion and confidentiality is shown at all times.

IMPACT

The role will be focused on meeting the aims and objectives of the projects covered by this post. It is very important to conduct high quality outputs to maintain and enhance the reputation and performance of the Centre / Institute, Theme and School and The Source Plus. This will have an impact on colleagues in related areas of research and could facilitate further internal and external collaborations.

FACTS AND FIGURES

CATEGORY

Economic Impact

Health Benefits

FACTS AND FIGURES

- The value of the global honey market was estimated at approximately \$9.1 billion in 2020 and is expected to reach around \$11.1 billion by 2027, growing at a compound annual growth rate (CAGR) of 3.5% during the forecast period. Africa supplies just 0.15%. (Grand View Research, 2020).
- Apiculture contributes significantly to agricultural economies, providing livelihoods for millions of beekeepers worldwide.
- Honey has been recognized for its antioxidant, antiinflammatory, and antimicrobial properties, making it a popular ingredient in wellness and medical practices. (Mandal & Mandal, 2011)
- According to research, honey can improve cholesterol levels and help lower triglycerides when used as a sugar substitute. (Al-Waili et al., 2004)







Bee Population

- Bees are vital pollinators, and their decline poses risks to global food security and ecosystems. Factors such as habitat destruction, pesticides, and climate change contribute to the decline of bee populations. (Potts et al., 2010)
- Colony Collapse Disorder (CCD) has been a concern in many regions, leading to significant losses in bee colonies. (vanEngelsdorp et al., 2008)

Types of Honey

Honey Production

Process

- There are over 300 unique varieties of honey, each with distinct flavors, colors, and textures, depending on the floral source.
 Common types of honey include clover, acacia, wildflower, and manuka honey, prized for their antibacterial properties.
- There are hundreds of honey varieties determined by the types of flowers bees visit for nectar. Monofloral honeys, like Manuka from New Zealand, can be particularly valuable and have unique medicinal properties. (Molan, 1992)
- Beyond food, honey is a critical ingredient in beauty products due to its moisturizing and anti-inflammatory properties. In medicine, honey has been used to treat wounds and burns. (McLoone et al., 2016)
- Bees convert floral nectar into honey through a process of regurgitation and evaporation, creating a product that is longlasting and resistant to bacterial growth. (Crane, 1990)

Bee Anatomy

 Did you know that Bees actually have five eyes: two large compound eyes and three smaller ocelli eyes(Srinivasan, et al., 2010)







SECTION 5

AM I SUITED TO THIS ROLE?

An individual currently or previously employed by The Source Plus or affiliated (family member) to The Source Plus employees, would not be eligible for the KTP Associate role.

Individuals who have already been a KTP Associate would not be considered an ideal candidate.

CRITERIA

EDUCATION/ QUALIFICATIONS

ESSENTIAL

Graduate degree(Bsc), in chemistry/biochemistry/biological sciences.

EXPERIENCE

KNOWLEDGE

Demonstrative experience of working in a laboratory environment.

Demonstrative experience of technical skills in analysis and measurements

Demonstrative experience in research projects.

Knowledge of quality assurance principles.

Familiarity with pesticide monitoring methods.

DESIRABLE

Postgraduate degree (MSc and/or PhD) in chemistry/ biochemistry/ biological sciences.

Publication record

Post-graduate research experience

Industrial experience gained from a role within, or linked to, commercial companies

Managing projects and delivering to time and budget

Knowledge of international honey regulations.

Understanding of recent research developments in food contaminants testing and industrial application

Practical knowledge of







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SKILLS/ APTITUDES

Excellent project and time management skills, ensuring that milestones and deliverables are achieved to time and to high quality.

Ability to communicate complex information clearly.

Excellent team-working and inter-personal skills

Strong oral, visual and written communication and presentation skills.

Ability to work independently and as part of a team.

Ability to work in both industrial and academic setting.

Agriculture industry in Kenya and abroad

Ability to network and expand existing contact list and collaborators.

Excellent presentation and public speaking skills.

Adaptability and flexibility in dynamic environments.

VALUES

Ability to demonstrate our values: Ambition, Impact, Respect and Community.

High degree of personal motivation and the ability to work with minimal supervision.

Delivery and solution focused approach to work

Willing to take personal responsibility for meeting objectives.

Self-motivated and interested in solving problems.

Proactive, driven, technical, and flexible.

Commitment to ethical research practices.

Demonstrated initiative in identifying and realising opportunities.

Demonstrate respect for diverse perspectives and cultures.

Environmental stewardship and conservation values.







OTHER

The willingness and ability to travel and work with national and international partners.

Due to the requirement to travel internationally you should possess a passport and have no travel restrictions on your passport

Knowledge of Agricultural Value chain: Experience/Familiarity with production processes, practices, and supply chains, preferably in the context of small-scale farming or rural development is a plus.





