

Nunhems BV – Job Description

Job title:	Research Assistant
Division:	Research and Development-CBDV
Reporting to:	Scientist
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➤ **JOB DESCRIPTION**

- Nunhems USA, Inc., a world leader in the development, production and marketing of hybrid vegetable seed and seed technology, is currently seeking a **Research Assistant, Cell Biology, Plants** to be based in Davis, California. This position has an emphasis in plant cell, organ and tissue culture and plant transformation and will function in the cell biology development department under the supervision of the scientist. The incumbent will assist the Cell Biology Scientist in designing and implementing a research plan of Nunhems' Cell Biology Program. This position will provide independent research and technical expertise in the daily operation of the plant cell biology program at Nunhems USA in Davis, California. The incumbent will provide technical expertise in plant tissue culture protocol development, media preparation, database maintenance, and vector and construct archiving. The incumbent will be responsible for organizing, scheduling and executing a wide range of tissue culture experiments including experiments in micropropagation, plant protoplast culture, double haploid production, and plant transformation. The incumbent will assist the scientist in coordinating the efforts of technical and student assistants in the lab.

➤ **EDUCATION AND EXPERIENCE**

- Candidates should possess a Masters of science degree in plant biology, genetics, plant breeding or a related field with experience of at least 3 years in a research laboratory. Candidates with a Bachelors degree in the above fields with suitable practical experience will be considered

➤ **MAJOR ACCOUNTABILITIES**

Research

- The incumbent will implementing new technologies, procedures and products and execute new methods and techniques in cell biology to create added value for Nunhems, vegetable product line. The incumbent will use established plant tissue culture protocols as well as modify and improve existing protocols with the goal of continuously improving dihaploid, micropropagation and transformation efficiencies. The incumbent will maintain cell lines and related tools routinely used in plant tissue culture research. The incumbent will assist in the maintenance of archived plasmids and *Agrobacterium* strains. The incumbent must have an in depth knowledge of plant tissue culture and transformation and be responsible for developing and improving plant tissue culture protocols for crops important to Nunhems. Attention to detail and experience tracking large number of plant material is essential. The incumbent will work as part of a team.

Information Management

- Advise, propose, communicate and inform the Scientist regarding the long and short term research projects.
- Manage the cell biology labs databases, including data entry and retrieve data from computers and associated databases.

Project plan

- Assist the Scientist in formulating detailed project proposals in cooperation with other members of the Nunhems' team. Work with the Scientist to ensure that projects stay within the timelines and budget guidelines
- The incumbent will interact with the Scientist and other staff members to ensure strict quality control procedures are followed. Contamination must be prevented and vector, germplasm and plant identity maintained throughout the tissue culture process.

Research experiments

- Design, plan, implement and execute research experiments and evaluate, analyze, interpret and document the results of the research experiments in line with the research policy, guidelines and procedures, with involvement of the Scientist, in order to optimize the efficiency and output of the cell biology program.

Communication other departments

- Stay up to date and exchange important information about new developments that may be used to improve the outcome of the research projects.
- Participate in lab meetings to discuss procedures, evaluate results and prioritize future activities
- Write summary reports outlining progress on research activities.
- Ensure technology transfer to operational departments.

Management

- Instruct, train, inform and monitor Research Technicians, students, seasonal aides and foreign colleagues regarding the execution of cell biology research experiments and activities.
- Coordinate the work flow of student helpers.
- Oversee the day-to-day activities of the student technical staff and student interns.
- Assist the Scientist in training the technical staff in the execution of cell biology research experiments and activities, including tissue culture and transformation techniques, media preparation, and aseptic technique.

➤ KEY SUCCESS FACTORS

- Extensive knowledge of plant cell and tissue culture methodologies including expertise in micropropagation, cell selection, double haploid production, protoplast culture and transformation in vegetable crops
- Demonstrated, in-depth hands-on experience working in an industrial plant tissue culture research laboratory dealing with a variety of research objectives in a variety of crop species

- The ability to apply knowledge of plant tissue culture to the development of novel tissue culture systems or protocols for vegetable crop to reduce time to market for Nunhems vegetable crops
- Demonstrated ability to work with and track large numbers of plant cell and tissue cultures, constructs, and transgenic events is required.
- Demonstrated communication and reporting skills

➤ **Skills, Experience & Qualifications**

- Extensive knowledge of plant cell and tissue culture methodologies
- Experience in dihaploid techniques in vegetable crops
- Experience in large scale micropropagation of plants especially vegetable crops
- Experience in protoplast isolation and culture.
- Experience in plant transformation of vegetable crops including industrial level plant transformation.
- Experience in media preparation, initiation of co-cultures, maintenance of cultures, and acclimatization of tissue culture plants to soil is required
- Ability to initiate and track large numbers of independent tissue culture experiments, ensuring identity preservation throughout the process.
- Demonstrated ability to troubleshoot plant tissue culture protocols and methodologies.
- Experience developing novel plant tissue culture protocols for a wide variety of plant species.
- Ability to perform numerous tasks simultaneously and manage workload to accomplish necessary tasks.
- Knowledge of Excel and Access software.
- Demonstrated interpersonal skills to interact with a variety of individuals.
- Demonstrated critical thinking skills, high level of accuracy, and decision making skills.
- Demonstrated command of English language for oral and written communications.
- Ability to exercise discretion and maintain confidentiality.
- A high level of organization skills, independent decision making skills, and the demonstrated ability to follow and develop scientific protocols with a high level of precision is essential.
- Expertise to design experiments aimed at improving tissue culture efficiencies is required.
- Demonstrated ability to review published scientific literature to develop or improve plant transformation protocols is essential
- Ability to maintain complete and accurate records for complex, multi-step processes is essential
- Knowledgeable of laboratory instrumentation and willingness to help monitor the use of common equipment by outside users is required.
- Ability to meet deadlines is essential.
- Ability to perform numerous tasks simultaneously and manage workload to accomplish tasks is essential.
- Ability and willingness to reliably carry out routine, repetitive work is required
- Knowledge of laboratory safety is essential. Knowledge of the proper use and handling of potentially hazardous laboratory chemicals.

➤ **Working conditions**

- Requires long periods of work in a laminar flow hood using aseptic techniques.
- Position requires lifting up to 25 lbs of equipment and chemicals
- Some weekend work may be required

➤ **Work Relations**

- Collaborate with other company cell biology researchers, plant breeders, marketing and production personnel.
- Ability to work independently, with little supervision, and as part of a team is essential.

Please submit resume to:

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