NOVARTIS

Senior Expert Science & Technology – Downstream Process Development & Modelling (m/f/d

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Словения
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Сводка

As an Expert of Science & Technology in Downstream Process Development, you will play a key role in advancing model-based development and decision making for biologics purification processes. You will develop, apply, and deploy mechanistic and hybrid models with a strong focus on covering downstream unit operations and their interconnection into integrated process flows. This role combines deep scientific expertise, hands-on experience in the experimental work, design, execution of process development activities, building and adopting AI fluency and digital implementation.

As a Science & Technology Expert, you will play a key role in advancing the development and optimization of biologics processes through process modeling, advanced analytics, data science, and artificial intelligence. You will develop and implement mechanistic and data-driven models to improve process understanding, predict process behavior, support decision-making, accelerate development, and enhance process robustness and technology transfer to manufacturing.

You will work closely with project teams, process development scientists, data scientists, and manufacturing stakeholders, and you will be an active member of a global modelling community shaping the future of downstream development at Novartis.

About the Role

Senior Expert Science & Technology – Downstream Process Development & Modelling (m/f/d)

Location: Mengeš, Slovenia #hybrid (12 days per month onsite)

We are the DSP department focused on the development of drug substances, leveraging advanced technologies, science-based approaches, and digital solutions to design and optimize processes for manufacturing scale, contributing to the delivery of high-quality, safe, and effective medicines..

In this role, you will:

- Develop, identify, and apply downstream process models for biologics processes, with a strong emphasis on chromatography and their underlying physicochemical principles.
- Extend modelling approaches to other downstream unit operations to support process understanding and optimization.
- Design, plan, and execute laboratory experiments to generate high-quality data for model development, calibration, and validation, working hands-on in the lab when required.
- Apply modelling to support process design, scale-up, troubleshooting, process robustness evaluation, and decision making across development stages.
- Implement and deploy models using scientific programming languages and advanced modelling tools or environments (e.g., Python, CADET, MATLAB, or similar), including development of user-friendly tools or applications for broader adoption
- Translate complex modelling results into clear, actionable insights for multidisciplinary audiences, including process scientists, project leaders, and management.
- Collaborate and communicate effectively with internal and external stakeholders, ensuring alignment between modelling activities, experimental work, and project objectives.
- Actively contribute to and help shape the global modelling community, sharing best practices, methodologies, and innovations.
- Contribute to scientific documentation, technical reports, and regulatory-relevant deliverables as required.

Education & experience

- MSc, PhD, or equivalent experience in Chemical Engineering, Biochemistry, Physics, Bioinformatics, Biomedical engineering, or related engineering or natural science discipline.
- Strong background in process modelling and/or Scientific computing.
- Strong, hands-on expertise in downstream process development, including mechanistic understanding of separation phenomena and demonstrated focus on process modelling.

Technical expertise

- Proven experience in downstream process modelling, parameter estimation, scale-down/scale-up concepts, and integration of multiple unit operations.
- Ability to design and run experiments to support model development and validation.
- Strong programming skills in Python or similar, with experience in building reusable tools, workflows, or applications for broader user groups.
- Familiarity with data analysis, visualization, and model deployment concepts into practical use.
- Experience in Data Science and strong interest to build AI fluency within DSP team and across business funtions.
- Excellent communication skills, with the ability to dive deep into topics, understand both scientific needs and business perspectives, and effectively translate them into clear, actionable solution and strategies.

With the selected candidate, we offer permanent employment with 6 months of probation period. Submit your application with your CV in both Slovenian and English.

Benefits & Rewards

At Novartis, we're committed to reimagining medicine together - and rewarding the people who make it happen. Expected Annual Base Salary Range for role: €46,550.00 - €66,500.00 - €86,450.00 EUR Annual

The base salary offered is determined based on gender-neutral objectives, such as relevant skills, competencies and experience in accordance with the Novartis pay

setting policy and upon joining Novartis will be reviewed periodically.

In addition to your base salary, you may be eligible for a performance-based bonus depending on certain performance parameters.

The rewards of being part of our team go far beyond base pay and incentives. We also offer a variety of competitive benefits in kind to help you thrive personally and professionally, such as insurance plans, retirement plans, wellbeing resources and global recognition programs. In addition, we provide flexible and hybrid working options, where possible, and minimum 14 weeks paid parental leave.

In addition to your base salary, you may be eligible for a performance-based bonus depending on certain performance parameters. Long-term equity awards granted at group level may also be part of your package. Further details will be provided during the application process.

Pay equity is a fundamental principle of our employment policy and reflects our commitment to create a diverse, equitable and inclusive environment that treats all employees with dignity and respect, as outlined in our Code of Ethics.

Read our brochure to learn more about our global total rewards offering:

https://www.novartis.com/sites/novartis_com/files/novartis-life-handbook.pdf

Note: Benefits and compensation may vary by country and are subject to local legal requirements, including provisions of collective bargaining agreements where applicable. A full overview of your compensation package, including any relevant collective bargaining agreement details applicable to your role based on your employment location and Novartis employer entity, will be communicated separately to you during the application process.

Commitment to Diversity and Inclusion: Novartis is committed to building an outstanding, inclusive work environment and diverse teams' representative of the patients and communities we serve.

Senior Expert Science & Technology – razvoj procesov čiščenja učinkovin in modeliranje procesov

Povzetek opisa delovnega mesta (m/ž/d)

Lokacija: Mengeš, Slovenija #hybrid

Smo oddelek DSP, osredotočen na razvoj učinkovin, pri čemer uporabljamo napredne tehnologije, znanstveno utemeljene pristope in digitalne rešitve za načrtovanje in optimizacijo procesov za proizvodno merilo ter tako prispevamo k zagotavljanju visokokakovostnih, varnih in učinkovitih zdravil za bolnike.

Namen delovnega mesta:
Kot strokovnjak za znanost in tehnologijo na področju razvoja procesov čiščenja učinkovin boste imeli ključno vlogo pri napredku modelno podprtega razvoja in odločanja za procese čiščenja bioloških zdravil. Razvijali, uporabljali in uvajali boste mehanistične in hibridne modele, s posebnim poudarkom na procesnih enotah čiščenja učinkovin in njihovi medsebojni povezanosti v integrirane procesne tokove.

Ta vloga združuje poglobljeno znanstveno strokovno znanje, praktične izkušnje z eksperimentalnim delom ter načrtovanjem in izvedbo aktivnosti razvoja procesov, gradnjo in uporabo znanj s področja umetne inteligence ter digitalno implementacijo. Tesno boste sodelovali s projektnimi ekipami, znanstveniki za razvoj procesov, podatkovnimi znanstveniki in deležniki v proizvodnji ter boste aktiven član globalne skupnosti za modeliranje, ki oblikuje prihodnost razvoja procesov čiščenja učinkovin v Novartisu.

Opis delovnega mesta

V tej vlogi boste:

- Prepoznavali, razvijali in uporabljali modele procesov čiščenja učinkovin za biološka zdravila, s posebnim poudarkom na kromatografiji in njenih temeljnih fizikalno-kemijskih načelih.
- Razširjali pristope modeliranja na druge procesne enote čiščenja učinkovin ter povezovali posamezne korake v integrirane modele DSP za podporo razumevanju in optimizaciji procesov.
- Načrtovali, pripravljali in izvajali laboratorijske eksperimente za pridobivanje visokokakovostnih podatkov za razvoj, kalibracijo in validacijo modelov, po potrebi tudi s praktičnim delom v laboratoriju.
- Uporabljali modeliranje za podporo načrtovanju procesov, prenosu v večje merilo, odpravljanju težav, vrednotenju robustnosti procesov in odločanju v različnih fazah razvoja.
- Implementirali in uvajali modele z uporabo znanstvenih programskih jezikov ter naprednih orodij ali okolij za modeliranje (npr. Python, CADET, MATLAB ali podobno), vključno z razvojem uporabniku prijaznih orodij ali aplikacij za širšo uporabo.
- Prevajali kompleksne rezultate modeliranja v jasne, uporabne uvide za multidisciplinarno občinstvo, vključno z znanstveniki za procese, vodji projektov in vodstvom.
- Učinkovito sodelovali in komunicirali z notranjimi in zunanjimi deležniki ter zagotavljali usklajenost med aktivnostmi modeliranja, eksperimentalnim delom in cilji projektov.
- Aktivno prispevali k globalni skupnosti za modeliranje in jo pomagali oblikovati z deljenjem najboljših praks, metodologij in inovacij.
- Prispevali k znanstveni dokumentaciji, tehničnim poročilom in dokumentom, pomembnim za regulatorne namene, kadar bo to potrebno.

Izobrazba in izkušnje

- Magisterij, doktorat ali enakovredne izkušnje s področja kemijskega inženirstva, biokemije, fizike, bioinformatike, biomedicinskega inženirstva ali sorodne inženirske oziroma naravoslovne discipline.
- Močno ozadje na področju modeliranja procesov in/ali znanstvenega računalništva.
- Poglobljeno praktično strokovno znanje na področju razvoja procesov čiščenja učinkovin, vključno z mehanističnim razumevanjem separacijskih pojavov in dokazano usmerjenostjo v modeliranje procesov.

Tehnično strokovno znanje

- Dokazane izkušnje z modeliranjem procesov čiščenja učinkovin, ocenjevanjem parametrov, koncepti pomanjševanja/povečevanja merila in integracijo več procesnih enot.
- Sposobnost načrtovanja in izvajanja eksperimentov za podporo razvoju in validaciji modelov.

- Močne programerske veščine v Pythonu ali podobnem jeziku, z izkušnjami pri gradnji ponovno uporabnih orodij, delovnih tokov ali aplikacij za širše skupine uporabnikov.
- Poznavanje analize podatkov, vizualizacije in konceptov uvajanja modelov v praktično uporabo.
- Izkušnje na področju podatkovne znanosti ter močan interes za krepitev znanj s področja umetne inteligence v ekipi DSP in v različnih poslovnih funkcijah.
- Odlične komunikacijske veščine, s sposobnostjo poglobljenega razumevanja tem, razumevanja tako znanstvenih potreb kot poslovnih perspektiv ter njihovega učinkovitega prevajanja v jasne, uporabne rešitve in strategije.

Izbranemu kandidatu ponujamo zaposlitev za nedoločen čas s 6-mesečnim poskusnim obdobjem. Prijavo oddajte skupaj z življenjepisom v slovenskem in angleškem jeziku.

Ugodnosti in nagrade

V Novartisu smo zavezani k skupnemu ponovnemu osmišljanju medicine – in nagrajevanju ljudi, ki to omogočajo.

Pričakovani letni razpon osnovne plače za delovno mesto: 46.550,00 -€ 66.500,00- € 86.450,00 € EUR letno

Ponujena osnovna plača se določi na podlagi spolno nevtralnih ciljev, kot so relevantne veščine, kompetence in izkušnje, v skladu s politiko določanja plač v Novartisu, po zaposlitvi v Novartisu pa bo periodično pregledana.

Poleg osnovne plače ste lahko upravičeni do bonusa na podlagi uspešnosti, odvisno od določenih parametrov uspešnosti.

Nagrade, ki jih prinaša članstvo v naši ekipi, segajo daleč prek osnovne plače in spodbud. Ponujamo tudi različne konkurenčne ugodnosti v naravi, ki vam pomagajo uspevati osebno in strokovno, kot so zavarovalni načrti, pokojninski načrti, viri za dobro počutje in globalni programi priznanj. Poleg tega, kjer je mogoče, zagotavljamo prilagodljive in hibridne možnosti dela ter najmanj 14 tednov plačanega starševskega dopusta.

Poleg osnovne plače ste lahko upravičeni do bonusa na podlagi uspešnosti, odvisno od določenih parametrov uspešnosti. Del vašega paketa so lahko tudi dolgoročne delniške nagrade, dodeljene na ravni skupine. Dodatne podrobnosti bodo predstavljene med prijavnim postopkom.

Plačna pravičnost je temeljno načelo naše politike zaposlovanja in odraža našo zavezanost ustvarjanju raznolikega, pravičnega in vključujočega okolja, ki vse zaposlene obravnava z dostojanstvom in spoštovanjem, kot je opredeljeno v našem Kodeksu etike.

Preberite našo brošuro in izvedite več o naši globalni ponudbi celotnih nagrad:

https://www.novartis.com/sites/novartis_com/files/novartis-life-handbook.pdf

Opomba: Ugodnosti in nadomestila se lahko razlikujejo glede na državo ter so predmet lokalnih zakonskih zahtev, vključno z določbami kolektivnih pogodb, kjer je to primerno. Celoten pregled vašega paketa nadomestil, vključno z morebitnimi relevantnimi podrobnostmi kolektivne pogodbe, ki veljajo za vašo vlogo glede na lokacijo zaposlitve in pravno osebo delodajalca Novartis, vam bo sporočen ločeno med prijavnim postopkom.

Zavezanost raznolikosti in vključevanju: Novartis je zavezan gradnji izjemnega, vključujočega delovnega okolja in raznolikih ekip, ki predstavljajo bolnike in skupnosti, ki jim služimo.

Why Novartis: Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients' lives. Ready to create a brighter future together? https://www.novartis.com/about/strategy/people-and-culture

Benefits and Rewards: Learn about all the ways we'll help you thrive personally and professionally.
Read our handbook (PDF 30 MB)

Primary location salary range
€46,550.00 - €86,450.00
Дивизион
Development
Business Unit
Development
Место
Словения
Сайт
Mengeš
Company / Legal Entity
SI19 (FCRS = SI019) Novartis farmacevtska proizvodnja d.o.o.
Functional Area
Research & Development
Job Type
Full time
Employment Type
Regular
Shift Work
No

Accessibility and accommodation

Novartis is committed to working with and providing reasonable accommodation to individuals with disabilities. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the recruitment process, or in order to perform the essential functions of a position, please send an e-mail to diversity.inclusion_slo@novartis.com and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

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