R&D specialist – Optics

A biomedical company focusing on medical devices in the field of ophthalmology, in particular on development of intraocular lenses, is offering a job opportunity in applied research in its R&D center in Kamenné Žehrovice, Kladno district. For the position of R&D specialist in applied optics group, we are seeking suitable versatile candidates able to work in multidisciplinary environment. Candidates with relevant background in optical design, optics and/or optical engineering will be considered.

If you are interested in this open position, please, send us:

1. Structured CV with the emphasis on relevant experience for the offered position (in English)
2. Motivation letter (in Czech) describing:
    a. Why you are interested in this position
    b. Why you want to work in our company
    c. What you can offer to the company
3. List of minimum two references with whom we can conduct an interview in person or by teleconference

Responsibilities

Theoretical and experimental multidisciplinary work under supervision of more senior colleagues including:

- Literature search on assigned topics, preparation of R&D proposals
- Independent work on R&D projects (when fit for the task) related to human vision including development of intraocular lenses (IOL) correcting presbyopia and impact of different IOL designs on human vision and to the properties of biomaterials, …
- *in silico* simulations and eventually related *in vitro* experiments
- Optical simulations using optics design SW (e.g. Zemax Optics Studio and/or OSLO), theoretical evaluation of optical performance of various IOL designs in model eye under different conditions, related experimental work if appropriate
- Experimental work, e.g. evaluation of optical bench performance of different IOLs and IOL prototypes in model eye under different conditions, performing related optical simulations using optics design and analysis SW if appropriate
- Development of measurement and optical characterization methods, continuous improvement of existing methods and custom made devices used for characterization of IOLs
- Data and image analysis, design and development of data/image processing algorithms, programming and advanced calculations.
- Formulation of conclusions for further R&D work and recommendations for marketing, writing experimental reports, protocols and research publications
- Assistance with ensuring smooth operation of optical lab, laboratory maintenance and calibration of assigned laboratory equipment (e.g. optical analyzer, optical profilometer, vision simulator, optical bench, aberrometer …), general laboratory activities and duties

Example of ***model problem and/or project*** supposed to be addressed:

- Setting tolerance limits for tilt and decentration of experimental intraocular lenses in (model) eye using theoretical methods as well as various experimental methods. Further development of appropriate experimental methods (including model eye design), assessment of compliance with theoretical model.

Career path

- Possibility of career growth to more senior R&D positions

Required Technical Skills, Knowledge and Experience

- Tertiary education in optics, optical engineering, optometry, ophthalmology or in related fields
- 3+ years of experience in research & development (including work on PhD thesis)
- PhD is a plus but not required
- Strong background in optics, mathematics and data analysis
- Previous practical experience with optical simulations using optics design SW is a must
- Previous experience with experimental work in optical laboratory
- Practical experience with statistical analysis is an advantage
- Readiness to learn new skills and work in multidisciplinary environment
- Excellent PC skills:
    - Proficiency in optical design and analysis SW (ZEMAX Optics Studio, OSLO or other) is indispensable
    - MatLab
    - Origin, statistical analysis SW…
    - MS Excel, MS Word, MS Power Point….
- English level – B1/B2 at minimum
- Previous work experience in private sector is a plus
- Scientific literature writing

Other skills and desired behaviors

- Versatility, readiness to learn new skills in multidisciplinary environment
- Ability to work on interdisciplinary projects
- Creative problem solver with ability to think critically and "out-of-the box"
- Diligence, accuracy, reliability and personal integrity
- Ability to organize own work to achieve assigned tasks
- Independence combined with ability to recognize own limits
- Strong team player

What we offer

- Competitive compensation
- Pleasant and interdisciplinary working environment in a group of young co-workers
- Modern laboratory with excellent instrumental equipment
- Support of professional development
- Participation in relevant international conferences

Contact:

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