

# Vision: Fostering world-class science and scientists for societal relevance

Medfarm contributes to the society of tomorrow by promoting outstanding science and innovations to make a real difference for human health and disease. Individual scientists and the leadership join hands to build an inclusive and highly collaborative research environment.

## Strategic goal 1: Research communities built on excellence, diversity, a first-class work environment and ethical conduct

### Ambition 1

Medfarm is built on strong research communities that enable both excellence and breadth. The Medfarm culture is based on diversity, mutual respect and inclusion, promoting interactions at all career stages and in a cross-disciplinary environment. With the highest standards for research ethics and integrity as integral components communicated clearly by the leadership, Medfarm maintains an accommodating and transparent research culture.

Action 1.1: Define and communicate how Medfarm ensures the well-being of all co-workers, and encourages and supports co-worker engagement and professional improvement.

#### *Indicators, action 1.1*

- Result from questionnaire on psychosocial work environment
- Turnover of personnel (both incoming and outgoing)
- Structured follow-up feedback from alumni
- Sick leave numbers over time (and possibly additional indicators from the Occupational Health services)

Action 1.2: Medfarm forms and enhances scientific communities spanning across departments/faculties/healthcare/life science industry, with strong ties nationally and internationally. As an example, Medfarm works closely with SciLifeLab as a national research environment at the international forefront.

#### *Indicators, action 1.2*

- Co-publications across departments/faculties/healthcare/life science industry nationally and internationally
- Co-publications with highly ranked institutions/researchers. (field-normalized citation indexed?)

- Number of PI:s affiliated with excellence centra, such as SciLifeLab
- Participation in international research consortia
- Number of PI:s leading international research consortia
- Editorial assignments in scientific journals of high standing
- Leading roles in academic societies
- Evaluators of international research environments/institutes
- National and international grant evaluation

Action 1.3: Prioritize and support high-level research seminars and workshops. A dedicated portal for these, as well as modern Internet-based tools make the talks readily available to everyone at Medfarm. A new prize for excellent seminar leader/organizer encourages high-level seminars.

#### *Indicators, action 1.3*

- Technical solution to advertise seminars and workshops, and to measure the participation of internal and external participants.
- Anonymized evaluation of seminar series (not individual speakers)
- Organized visiting programs for external speakers to enhance networking, especially for young scientists

Action 1.4: Medfarm stimulates innovation and entrepreneurial activities in order to enhance Uppsala's position as a leader in the industrial life science sector.

#### *Indicators, action 1.4*

- Action group to identify if parameters from the European Innovation Scoreboard can be applied at Medfarm
- Number of patents
- Number of agreements for commissioned and collaborative research with industry
- Number of startups and exits
- Number of projects going into clinical phase(s)
- Board memberships for Medfarm researchers

## Strategic goal 2: Medfarm forges strong and resilient ties with the health care sector

### Ambition 2

Medfarm recognizes the importance of bridging university and health care, as these are inseparable partners and rely on each other for scientific advances and practical implementation. Research at Medfarm is seamlessly intertwined with Region Uppsala, with clinical research centers in sjukvårdsregion Mellansverige, as well as national and international clinical partners to enable translation of discoveries.

Action 2.1: Research at Medfarm leads to evidence-based implementation of new ideas in the form of therapies, technologies, and new clinical guidelines.

*Indicators, action 2.1*

- Number of applications/consortia (approved/applied) for translational projects at Vinnova, VR Clinical Therapy Research grants, and similar clinically-oriented funders
- Participation in clinical guidelines
- Participation in clinical trials (registration/reporting at clinicaltrials.gov or similar platforms, and those registered with Region Uppsala)
- Participation in international clinical trials

Action 2.2: Medfarm is working together with Region Uppsala to create transparent career paths for combining academic and clinical careers for all healthcare professionals, and to ensure a first-class physical and intellectual working environment.

*Indicators, action 2.2*

- Number of joint positions
- Number of adjunct lecturers and professors
- Number of positions for research in clinical environment (postdoc, “Gullstrand” positions)
- Checkpoints to follow-up actual research time allotted to clinicians
- Graphical illustration of the career path for clinical researchers
- Inventory and follow-up of access to adequate work places and meeting points for research personnel at Akademiska sjukhuset/Region Uppsala

Action 2.3: Medfarm recognizes the challenges of combining work in health care with PhD studies, and is actively monitoring the status of clinical PhD students to ensure that their individual study plans are followed.

*Indicators, action 2.3*

- Yearly checkpoint of actual research time for clinical PhD students, and action plan if the time was not adequate
- Actual time for completing a PhD for clinicians

Action 2.4: Medfarm works with Region Uppsala to coordinate and streamline available support to clinical research.

*Indicators, action 2.4*

- Share of ALF funding to Uppsala upon national evaluation
- Medfarm and RU joint follow-up how ALF funding is working towards its goals
- Medfarm and RU joint follow-up of RU research and development funds (RUFU) are working towards its goals

Action 2.5: Medfarm and Uppsala University Hospital share offices, lab spaces and research facilities to enable collaboration.

#### *Indicators, action 2.5*

- Specific questions directed to clinicians in the work environment questionnaire regarding physical and work environment

## Strategic goal 3: Improved Research output

### Ambition 3

Research at Medfarm is at the highest international standard. Medfarm supports implementation of research, and acknowledges that cross-disciplinarity is an asset for innovation at a broad university such as Uppsala University. Acknowledging that research at Medfarm serves to improve health and well-being, we constantly strive for excellence and research of the highest quality. We also acknowledge the need for research-linked education, and ensure a breadth of subjects for all educational programs.

Action 3.1: Encompass investigator-initiated research to allow for novel, also unexpected, discoveries.

#### *Indicators, action 3.1*

- Communicated and showcased successful discoveries
- Directed support to selected grants with high national and international competition

Action 3.2: Develop success indicators that are based on quality measurements, to increase the quality and impact of our scientific output. Develop methods to define excellence according to the prerequisites of different research areas, which should include e.g. field-normalized measurements to better guide how Medfarm rewards success. This is an important measure for both career promotion and to direct faculty funds.

#### *Indicators, action 3.2*

- Include field-normalized citations as a measure of quality of publications, compared to currently used measurements

Action 3.3: Medfarm prioritizes outreach activities, as a way of engaging with society and stimulate broader recruitment. Medfarm interacts with patient associations and technology transfer bodies to further develop our research and innovations, and to ensure that discoveries reach patients and/or find applications. Members of Medfarm engage in national and international scientific societies.

#### *Indicators, action 3.3*

- Follow-up of Medfarm media engagements, and Medfarm researchers' participation as experts

- Number of popular science activities
- Note interactions with patient organisations
- Investigate if part of the European Innovation Scoreboard can be applied to Medfarm

## Strategic goal 4: Recruitment, training and career development

### Ambition 4

Medfarm attracts and retains high-profile individuals of all relevant professional backgrounds. As an academic cornerstone, scientists at all levels are included in the collegial processes and duties. Medfarm educates tomorrow's leaders in academy, healthcare, industry and government, by providing first-class learning environments for PhD students and postdocs.

Action 4.1: Increase the visibility of Uppsala university internationally to attract talented individuals. The attraction of Medfarm and Uppsala increases by the provision of start-up packages for selected recruited individuals establishing themselves at Medfarm.

#### *Indicators, action 4.1*

- Measure visibility when advertising lecturer and professor positions, for example in international fora, and social media
- Number of qualified external applicants

Action 4.2: Support the progress of docents, assistant senior lecturers, early-stage clinical researchers of all health care professions, and senior lecturers by clearly defined and communicated tenure track criteria, and mentoring programs customized to specific career segments.

#### *Indicators, action 4.2*

- Review the criteria for promotion
- Medfarm has a mentor program
- Number of docents from Medfarm
- Research activity after completed PhD for health care professionals

Action 4.3: Shorten the timelines of the recruitment process. Provide checklists of the steps and procedures of BUL, lecturer and professor recruitments to Heads of Departments, Recruitment Groups and others to visualize where time lines can be shortened

#### *Indicators, action 4.3*

- Measure time to assign external reviewers
- Time to recruit with continued high quality of the process
- Number of academic teacher positions filled by the highest ranked candidate

Action 4.4: Provide excellent and continuous leadership training, and require that academic leaders continuously develop their leadership skills. Stimulate broader recruitment

*Indicators, action 4.4*

- Follow-up of formal leadership training of academic leaders
- Leadership skills development should be a parameter for performance indicators for those in leadership positions

Action 4.5: To increase visibility and transparency of PhD student recruitment, Medfarm primarily announces doctoral student positions in coordinated campaigns. To increase the students' insights in ongoing research at Medfarm, some programs provide rotations before matching doctoral students to supervisors and projects.

*Indicators, action 4.5*

- (long-term) follow-up of the result of coordinated campaigns when compared to individual announcement of positions
- Evaluation of pilot of rotation program(s)
- Alumni follow-up of doctoral students from Medfarm

Action 4.6: All doctoral students are part of a strong research community. This is organized either through "research tracks" implemented by Medfarm. Graduate schools are also available via some Research Centers (e.g. Antibiotic Center and Womher, DDLs, Diabetes Center) and Marie Curie ITN programs.

*Indicators, action 4.6*

- Measure activity of the "research tracks"
- Portion of PhD students in graduate schools
- Number of PhD students in graduate schools with focus on life sciences
- Result of course evaluations

Action 4.8: Emphasize thesis quality over quantity.

*Indicators, action 4.8*

- Number of times Medfarm theses are downloaded from DIVA
- Bibliometric evaluation of Medfarm PhD theses as a follow-up after 3-5 years

## Strategic goal 5: Resources (funding and infrastructure)

## Ambition 5

Medfarm scientists are competitive in receiving national and international funding awards. Infrastructure at Medfarm is state-of-the-art, and supports research with technologies and capabilities.

Action 5.1: Medfarm actively supports formation of strong consortia for grant applications, where cross-disciplinary and/or complementary competences increase the ability to compete. Examples hereof are matchmaking events such as speed-dating, Medfarm conferences, or network analysis (by e.g. keywords and publication patterns).

### *Indicators, action 5.1*

- Resulting number of UU PIs in applied competitive grants
- Resulting number of UU PIs in approved competitive grants
- Funding level increase of approved grants

Action 5.2: Grant-writing workshops and internal peer review are tools to reach the strategic goals. Medfarm manages this both through participation of experienced internal researchers with a strong track record of attracting funding, and by engagement of external advisors. Recurrent workshops and internal peer review train and support doctoral students, young scientists as well as more senior investigators in successful grant writing.

### *Indicators, action 5.2*

- Resulting number of UU PIs in applied target grants
- Resulting number of UU PIs in approved target grants
- Funding level increase of approved grants

Action 5.3: Medfarm's Research Support Unit is well-versed in complex and demanding applications, such as Horizon Europe and NIH grants. The Research Support Unit provides, when necessary, templates for texts specific to recurrent funding schemes, e.g. EU. Provide financial support upon assessed potential for approval, to write more complex applications that require formation of large consortia and coordination of efforts.

### *Indicators, action 5.3*

- Template texts available
- Number and type of grants that the unit supported, as well as success rate, in particular for new grantees
- Number of grants with support from the unit
- User feedback

Action 5.4: Medfarm proactively strives to influence funding priorities nationally and at the European level.

### *Indicators, action 5.4*

- Number of Medfarm individuals in policy groups and policy fora
- Position papers where Medfarm participate

Action 5.5: Medfarm scientists have access to state-of-the-art infrastructure made possible by the support of Medfarm to local and national infrastructures. Existing infrastructures are given additional visibility, e.g. by a well-structured UU-wide infrastructure portal. Prioritize large data handling, and procedures to increase efficacy of biobanks, for sample collection and withdrawal.

*Indicators, action 5.5*

- Participation and success rate in applications for infrastructure at national and international level
- Financial support to large data handling
- Medfarm participation in current and new infrastructures
- Number of users per department

Action 5.6: Ensure that support and administrative functions are of the highest quality to assist and maintain research and other core areas.

*Indicators, action 5.6*

- User satisfaction questionnaire
- External evaluation of UU central administration (KoF för centrala förvaltningen)