



Faculty of Life Sciences

Strategic Operating Plan 2016/21 - confidential

1. Executive Summary

The Faculty of Life Sciences exists to focus passion and purpose on the search for the answers to some of the most enduring questions about life on earth; and to tackle and solve some the most urgent problems that face humans and other animals. We use that passion and purpose to teach and train the next generation; to deliver the highest quality research; and to have impact on both society and the wider world.

Our Faculty now demonstrates a consistently high and increasing level of academic excellence and is performing at an elevated level both academically and financially relative to benchmarks and within SLMS. By 2021 we will be recognised not only for our core academic excellence, but for an increasing teaching & research focus on emerging ‘frontier’ and interdisciplinary areas of the Life Sciences, including (but not restricted to):

- Investigating the origins and evolution of life on earth
- Understanding the physics of living systems and how they constrain cell and tissue behaviour
- Cells as macromolecular machines
- A global focus on biodiversity & environmental research
- Delivering a step change in drug discovery and therapeutic innovation
- A world-leader in cell and tissue imaging technology & development
- Understanding how neurons generate the circuits that mediate cognition and behaviour

Our elevated levels of academic and financial performance mean that our Faculty is now at an inflection point in its journey towards financial sustainability. The strict cost controls we have established will be maintained but will deliver increasingly smaller gains as all major savings have now been delivered. A significant limiting factor is now our ability to secure accurate business information and engage productively with central Professional Services to deliver further progress in income generation and cost saving, supporting academic excellence. We will progress such initiatives actively in the planning period as our future financial sustainability depends upon them.

We plan no major changes to our size and shape, but will re-evaluate whether reconfiguring Faculty structure will enhance the prospects for improving our academic excellence. Supporting our academic mission, we will make modest investment when academic staff leave to improve teaching and research quality; and deliver new academic staff investment in cross-disciplinary or cross-Faculty areas (e.g. biodiversity; drug discovery) where external income sources exist and a sustainable contribution rate can be achieved. Our overarching objective is to deliver a high and uniform emphasis on quality associated with UCL core values leading to academic excellence and global impact in a financially sustainable fashion

Key Actions Summary

Faculty of Life Sciences			
Key Actions	2016/17	2017/18	2018-21
Improve student experience and develop new ways of delivering education	<ul style="list-style-type: none"> • Grow MSci student streams • Enhance and modernise MPharm programme • Consolidate PGT programmes • Improve CTFU provision • Pilot new Life Learning courses and evaluate demand 	<ul style="list-style-type: none"> • Grow Life Learning activity, especially in interdisciplinary areas • Develop international consultancy and education portfolio around pharmacy • Ensure adequate succession planning for major UG degrees 	<ul style="list-style-type: none"> • Grow Life Learning activity • Ensure adequate succession planning for major UG degrees • Successfully renew major DTPs
Deliver research excellence through a sustained focus on quality	<ul style="list-style-type: none"> • Increase overhead recovery • Increase direct recovery of costs on grants • Improve business planning of new hires • Increase Fellowships and WT 	<ul style="list-style-type: none"> • Increase overhead recovery • Increase direct recovery of costs on grants • Continue Fellowships and WT Investigator awards • Deliver Doctoral Education 	<ul style="list-style-type: none"> • Ensure all research-active staff have adequate grant income • Continue Fellowships and WT Investigator awards

	<ul style="list-style-type: none"> Investigator awards Deliver Doctoral Education strategy Formalise proleptic appointments policy 	<ul style="list-style-type: none"> strategy Improve quality of research outputs Develop translational neuroscience 	<ul style="list-style-type: none"> Deliver Doctoral Education strategy
Create state-of-the-art core technology platforms	<ul style="list-style-type: none"> Invest in drug discovery academic critical mass Complete UCL/Leica Imaging Centre Consolidate EM Implement BSU change programme Improve technician support 	<ul style="list-style-type: none"> Improve cost-recovery and financial transparency of platform technologies Complete BSU change programme Horizon scan for new technology platforms to support emerging areas 	<ul style="list-style-type: none"> Improve cost-recovery and financial transparency of platform technologies Develop new sustainable technology platforms to maintain academic environment
Invest sustainably in interdisciplinary research and teaching	<ul style="list-style-type: none"> Complete CBER recruitment SWC Director recruitment Plan ZSL/loZ joint venture Develop Plant science Launch iPLS MSc Launch Metabolism & Society @ UCL Revitalise CoMPLEX Initiate at least one Crick satellite or secondment 	<ul style="list-style-type: none"> Continue SWC recruitment Launch Evolution domain and/or CLOE initiative Develop CM³ initiative Initiate at least two Crick satellite or secondments Secure major funding for Metabolism & Society @ UCL Deliver joint venture with ZSL/loZ 	<ul style="list-style-type: none"> UCL East development with Field Studies Council Continue SWC recruitment Initiate at least one Crick satellite or secondment Secure major funding for Plant Science
Strengthen leadership and culture	<ul style="list-style-type: none"> Recruit CDB senior academic Recruit SWC Director Develop early career researchers Athena SWAN for GCNU/SWC 	<ul style="list-style-type: none"> Recruit LMCB Director Progress Equality & Diversity Develop early career researchers 	<ul style="list-style-type: none"> Develop early career researchers All Divisions Athena SWAN Silver

2. Vision

Our Faculty exists to **focus passion and purpose** on the search for the answers to some of the most enduring questions about life on earth; and to **tackle and solve some of the most urgent problems** that face humans and other animals. Important questions to us include: how did life on earth begin and evolve? What links human and animal health and the environment? How do cells work? How does evolution shape the genome? How do organisms develop? How do neural circuits create behaviour? How can we develop novel drugs?

In pursuing our vision, **grass roots creativity** is very important to us. We use open approaches, sharing data and seeking to engage and empower all our staff through transparent approaches to science, teaching and leadership. We build relationships **across disciplinary boundaries** and seek power to deliver our vision through **connection rather than hierarchy** in a large and complex institution.

Our Faculty now demonstrates a consistently **high and increasing level of academic excellence** and is performing at a high level both academically and financially relative to benchmarks. A **focus on cost control** over the last five years has delivered major growth of 114% in our contribution, underpinning the SLMS growth overall (50.4%) during that period (11/12 FLS actuals: £14,497K, 15/16 forecast £31,990K). Our Faculty now operates successfully with a (2015/16 forecast) contribution of ~31% on total income and ~54% on core income.

Our academic excellence must now be consolidated and diversified. By 2021 we will be recognized not only for our core academic excellence, but for an increasing academic (i.e. both teaching & research) focus on emerging **'frontier' and interdisciplinary** areas of the Life Sciences, including (but not restricted to):

- Investigating the origins and evolution of life on earth
- Understanding the physics of living systems and how they constrain cell and tissue behaviour
- Cells as macromolecular machines
- A global focus on biodiversity & environmental research
- Delivering a step change in drug discovery and therapeutic innovation

- A world-leader in cell and tissue imaging technology & development
- Understanding how neurons generate the circuits that mediate cognition and behaviour

Our high levels of academic and financial performance mean that our Faculty is now at an **inflection point** in its journey towards financial sustainability. The strict cost control we have established will be maintained but will deliver increasingly smaller gains as all major savings have now been delivered. A significant **limiting factor** in delivering further cost savings is now our ability to engage productively with central Professional Services in delivering further change. Structural change has been evaluated but the efficiency of our Faculty means that cost savings would be dramatically exceeded by income loss. To further improve our financial sustainability will now require **modest investment** to deliver academic excellence with income at or above 30% contribution rate. We will also need to maintain and develop our **local infrastructure** and **key platform technologies**.

By 2021 we will be recognized for:

- Universal academic excellence and a top 3 REF 2020 performance
- Consistently excellent student experience delivered through innovative research-embedded teaching
- Support for innovative, cross-cutting and sometimes high risk research
- Empowered and engaged staff at all levels who love working in FLS
- A vibrant research culture with a UK-leading focus on impact and inter-disciplinarity
- Pervasive engagement across UCL, particularly with MAPS and Medical Sciences
- A leader in scientific collaboration with the Francis Crick Institute
- Financial discipline achieved without overly intrusive management

Our current **size and shape** (two large Divisions with balanced teaching/research portfolio complemented by three research-focused externally funded centres) delivers academic excellence, improved financial sustainability, low professional services (PS) costs and good integration with the Faculty PS team. By 2021 our size and shape will be comparable to 2016 but with a more diverse age profile of staff. Student numbers will be little changed but (depending on market forces) a small shift towards PGT and away from some UG courses (e.g. MPharm).

3. External environment

Our external environment is exceptionally challenging due to flat or declining student demographics, flat tuition fee and research income streams, cost inflation in staffing, dramatic policy instability and extreme competition with other institutions for students, staff and research funding. Our plans respond to this by establishing and maintaining a consistent focus on **quality** consistent with **UCL core values** to deliver **academic excellence**:

- **Flat or declining student demographics.** We will respond in a market-specific way, continuing to focus on overseas recruitment in specific markets (e.g. MPharm, SoP MSc). We will redouble efforts to increase conversion rates through targeted outreach and open days. We will encourage high quality recruitment and reduce dropout through focusing on and developing a research-embedded high quality student experience.
- **Flat income streams.** In terms of research income, our plans are to respond through a relentless focus on quality plus a focus on longer larger grants; and improving not only overhead recovery but also direct support for PI salary (e.g. Fellowships, direct cost recovery of PI salary on grants) and core facility costs. A checklist for grant applications is eliminating non-strategic research that delivers low overheads and improving PI direct cost recovery. We develop new income streams in education consultancy for SoP and Life Learning.
- **Cost inflation.** Our plans accelerate flexible retirement and emphasise restructuring of professional services teams where appropriate, while minimising any increase in academic headcount.
- **Extreme competition – research funding.** Our plans identify upcoming areas of focus (e.g. the new Global Challenges Research Fund) and emphasise inter-disciplinarity where our competitors are weaker. A relentless focus on quality has maintained funding application success rates at ~50%. In areas that show a lower level of research income per FTE there is a specific focus on improving major grant applications and enhancing income, terminating low quality research and redirecting staff effort. An increased focus on research translation globally creates threats to discovery science which is the main focus of our Faculty. Our plans respond to this by emphasising quality, originality and creativity of our science; and by investing

in interdisciplinary research that connects our discovery science to translational activities in other Faculties or universities.

- **Extreme competition - students.** Market research shows our undergraduate income stream has two main competitors: Imperial (for the biologically focused UG courses) and KCL (for the MPharm degree). Competitor analysis shows the principal reason for declining UCL in favour of competitors are bursary provision and/or NSS (for home students). We have therefore initiated philanthropic work to improve bursary provision (\$150,000 secured in 15/16) and an extensive programme of ASER work to improve NSS.
- **Extreme competition - staff.** We continue to deliver transparency of appointment and tenure in all leadership positions and a relentless focus on leadership training to improve quality. Our plans seek to make FLS a happy place to work through focusing on creating a respectful workplace, delivering work/life balance and reducing stress, and dramatically improving equality & diversity.

There are also specific threats that will demand increased focus in the near term:

- **Changes to the pharmacy profession** with recent announcements of both increased roles and a significant cut in funding for community pharmacies. There is an acknowledged oversupply of pharmacists due to the proliferation of pharmacy schools on the UK. We will respond by restructuring (and possibly decreasing) the size of the MPharm degree to maintain quality and innovation

And there are also some opportunities that we need to be positioned to exploit

- **The Global Challenges Research Fund** has been announced with planned spend of £38M (17/18) rising to £216M (19/20). We will position ourselves by investing in drug discovery, biodiversity and environmental research to partner within UCL or externally in securing a significant proportion of this research funding.
- The **Francis Crick Institute** will open its main laboratory building in 2016. We already have seven joint appointments and will prioritise further satellites, secondments and sabbaticals in order to drive research and teaching integration while relieving pressure on our estate.
- The **Turing Institute** provides significant opportunities for our bioinformaticians and the UCL Genetics Institute to partner in developing novel algorithms. We will position UGI educationally and in research terms to exploit the growing focus on algorithmic approaches to biological complexity.

4. Objectives and actions

Our overarching objective is to deliver a high and uniform emphasis on **quality** associated with **UCL core values** leading to **academic excellence** and **global impact** in a **financially sustainable** fashion that typically targets contribution rates >30%. FLS activities already have broad engagement across UCL2034 Principal Themes.

A high existing level of Faculty research performance is confirmed by external review in REF2014 (UoA5 4*/3* percentage 46/36% & UoA3b 47/40% rising from 15/40 and 25/40% in 2008), successful 2015 International Scientific Advisory Board visit to the UCL/MRC Laboratory for Molecular Cell Biology (LMCB), successful 2015 Gatsby Computational Neuroscience Unit QQR. Teaching excellence is now at a high level with overall 2015 NSS score of 86% (up 1%) and four degree programmes at greater than 90% (Biological Sciences, Neuroscience, Human Sciences, Biomedical Sciences), although some other areas need attention.

We now seek to further **increase quality** within the cost control envelope established over the last three years, and to deliver some **investment** largely associated with academic retirements or funded by external sources, to deliver income at a high marginal contribution rate (>30%). Our vision is challenging to deliver and will require continuous competitive innovation within a changing external landscape. Our key objectives are:

Objective	Strategy reference	Actions
Increase quality and global impact of our research		
Make UCL a world leader in imaging technology and development	PT- 1,2,3 KE-C,E	<ul style="list-style-type: none"> Establish UCL Imaging Centre [with FBS] Establish high throughput drug screening in Imaging Centre Develop Centre for Macromolecular Machines [with Birkbeck] Develop effective collaboration between the Francis Crick Institute and UCL facilities, including SuRF and our efforts to coordinate light imaging plus the UCL/Leica Imaging Centre. Embed imaging technology in our research-embedded teaching at MSci and MSc/MRes/PhD levels
Develop effective and productive scientific relationships with the Francis Crick Institute	PT-1,2, KE-C,D	<ul style="list-style-type: none"> Secure funding for at least three Crick satellites Ensure successful move into Midland Place for joint appointments, satellites & secondments from summer 2016 Identify and support new satellites and secondments for FCI Extend annual FLS research day to FCI Ensure external grant funding underwriting all joint appoints
Ensure SWC/GCNU and allied activities make FLS the best centre in the world for neural circuits & behaviour research	PT-1,2 KE-D,E	<ul style="list-style-type: none"> Complete recruitment of SWC Director Complete GCNU integration with SWC Ensure GCNU continues to secure more external funding Support partnership with Hebrew University & Columbia Build strong partnerships and activities between the SWC/GCNU and other FLS (or SLMS) neuroscientists
Establish FLS as the UCL hub for therapeutic discovery	PT-1, PT-2, PT-3, PT-6, KE-A	<ul style="list-style-type: none"> Ensure effective embedding of TRO staff in School of Pharmacy Develop and launch new Life Learning courses in Drug Discovery Strengthen academic critical mass in Drug Discovery for School of Pharmacy Progress the drug formulation initiative Complete UCL/Leica imaging centre with high throughput drug screening platform [with FBS]
Establish FLS as a leader in cross-disciplinary research & teaching within UCL	PT-1, 3, 4, 5, 6 KE-A, C, D, E, F	<ul style="list-style-type: none"> Further develop activities associated with Molecular Cell Biology domain and extend to FCI Establish new cross-UCL Metabolism & Society @UCL activity Recruit translational neuroscience leader to SoP and integrate

		<p>with ARUK Drug Discovery Unit/UCL Imaging Centre</p> <ul style="list-style-type: none"> • Refresh Medical School teaching with proactive succession planning & new focus on computational biology • Develop Natural Sciences degree [with MAPS] and re-vitalise CoMPLEX postgraduate training [with MAPS & Engineering] • Launch Institute for Physics of Living systems MSc [with MAPS]
Progress strategic partnership between UCL & Birkbeck College	PT-1,2 KE-D,E	<ul style="list-style-type: none"> • Replace retiring Faculty (leveraging joint appointments with Birkbeck) with replacements in infrared spectroscopy and biochemistry • Develop estates case for Centre for Macromolecular Machines
Become a global leader in environmental and biodiversity research	PT-1,2,3,KE-1	<ul style="list-style-type: none"> • Continue planned (endowment-supported) recruitment to Centre for Biodiversity and Environmental Research • Initiate at least one major joint project with Zoological Society of London/Institute of Zoology in the 'One Health' area • Continue to explore partnership with Kew in plant sciences
Ensure sustainable access to state-of-the-art Life Sciences technology platforms	PT-1,2,3,KE-1	<ul style="list-style-type: none"> • Complete UCL/Leica Imaging Centre (with FBS) • Consolidate spinning disk microscopy (with FMS) • Consolidate BSU and support transition to P-Block • Consolidate EM facilities across Biosciences & School of Pharmacy • Horizon-scan to identify new areas where consolidation into cost-recovered core facilities can respond to the developing needs of researchers
Increase volume and quality of research activity associated with the School of Pharmacy	PT-1, 2, 3, KE-1	<ul style="list-style-type: none"> • Invest in Drug Discovery and Translational Neuroscience to connect with UCL Imaging Centre, the Translational Research Office and other Faculties • Support career progression of high quality Excellence Fellows • Engage fully with SLMS Research Facilitators • Improve overhead recovery from industrial grants • Improve volume of 4* research outputs • Consider relocating activity within BMA House to maximise research interactions
Increase quality of our education & training		
Develop research-embedded teaching and make pervasive throughout FLS	PT-1,2, KE-A,B,C	<ul style="list-style-type: none"> • Implement Cell Biology MSci stream • Grow Biochemistry, Molecular Biology & Biotechnology MSci • Optimise research-embedded teaching provision at CTFU • Develop group research projects for MSci streams
Deliver a UK-leading MPharm degree	PT-2, 3, KE-A	<ul style="list-style-type: none"> • Finalise and implement Years 3 and 4 of MPharm programme • Develop 5-year degree incorporating pre-registration training. • Refine implementation of values-based recruitment • Improve overseas marketing
Promote culture of universal pedagogy	PT-2, 3, KE-A	<ul style="list-style-type: none"> • Increase engagement with UCL Arena • Increase proportion of staff with Higher Education Academy qualifications • Develop joint project with UCL Institute of Education for undergraduate pharmacy students • Roll out postdoctoral accreditation scheme for teaching
Enhance and ensure sustainability of Doctoral Training	PT- 2, KE-A	<ul style="list-style-type: none"> • Successfully initiate MRC Doctoral Training Programme across SLMS and develop specific skills training programme • Enhance integration between BBSRC, NERC and MRC DTPs hosted

Programmes hosted in FLS		<p>in FLS and with EPSRC DTPs hosted in BEAMS</p> <ul style="list-style-type: none"> Support development/refresh of CoMPLEX
Establish new and sustainable international activities in Life Sciences	PT-1,2,3,6, KE-A	<ul style="list-style-type: none"> Deliver at least one major international consultancy agreement Deliver China strategy with at least two contracts for Masters students and Shenyang laboratory Continue Clinical Pharmacy Summer School with 25 students Develop PharmAlliance with Monash & UNC exploring joint Masters possibilities Initiate partnership with Chulabhorn Research & Graduate Institutes
Consolidate and improve Masters programme provision	PT-2, KE-A	<ul style="list-style-type: none"> Address recruitment or terminate courses with fewer than 20 students unless strong academic justification. Increase attendance at international recruitment fairs (targeting specific sectors e.g. Singapore) Increase promotional activity through continued use of video, subject-specific brochures and engagement with International Office's Hobson's Connect system.
Improve quality and experience for standalone PGR studentships	PT-2, 3, KE-A	<ul style="list-style-type: none"> Implement PGR studentship framework, providing cohort activities for non-DTP studentships Improve careers guidance and transferable skills through peer networks and targeted events
Deliver impact through developing Life Learning	PT-2, 3, KE-A	<ul style="list-style-type: none"> Partner with UCL Life Learning to develop drug discovery portfolio of Life Learning activity Invest in at least three or four new areas of Life Learning including Drug Discovery Support SysMIC to develop their PGR training into a Life Learning offering.
Increase quality of academic and professional services leadership		
Make sustained progress in equalities and diversity	PT-2, 5; KE-A, B	<ul style="list-style-type: none"> All Divisions to achieve Athena SWAN Silver by 17/18 Focus on BME mentoring in all teams at all levels Eliminate gender pay gap
Develop all staff	KE-B	<ul style="list-style-type: none"> Ensure a consistent high quality approach to staff appraisals Active participation in leadership training Focus on respectful workplace and mental health support/training
Recruit excellent group leaders	PT 1-6, KE B	<ul style="list-style-type: none"> Implement policy on objective evaluation for committed positions following on from personal Fellowships
Promote excellent leadership with transparency and authenticity	KE B	<ul style="list-style-type: none"> Complete recruitment of new SWC Director Recruit new senior position for Cell & Developmental Biology Prepare for new LMCB Director in 2017/18 Leadership team training in diversity & respectful workplace
Improve coherence and effectiveness of professional services teams	KE A,B,D	<ul style="list-style-type: none"> Restructure UCL Genetics Institute professional services team Reorganise the Biosciences Teaching Team Recruit new CTFU Manager Appoint new Finance Team Manager and review team structure

The actions and objectives described above are aimed at delivering **academic excellence** through emphasising **quality**. We will also need to **stop** some activities as outlined below in the 'Financial Sustainability' section.

5. Staffing

Our overarching goal is to improve the **quality** of all our staff (academic, research, teaching and professional services) consistent with **UCL core values** in order to deliver **academic excellence** at a similar shape and size. Growth in academic headcount is expected in new facilities such as the Sainsbury Wellcome Centre and the Centre for Biodiversity & Environmental Research but is typically fully cost recovered through external research income or endowments. Elsewhere we look to replace academic staff as we have an ageing Faculty with significant succession planning required to maintain teaching excellence.

Staff morale, mental health/stress & work/life balance

1. **Staff survey.** The 2015 Staff Survey indicates provides a wealth of data that inform our approach. Some key themes that are emerging are a need to focus on fairness and respect in the workplace; and on the goals and objectives for academic and professional services staff associated with their Divisions. We interpret these as reflecting the twin pressures of a focus on financial sustainability (and the change process associated with this) and the external demands on the HE sector. We will respond to this by increasing emphasis on communication, dialogue and explanation between the leadership team(s) and staff; and encouraging greater dialogue between professional services and academic/research staff.
2. **Mental health/stress.** UCL staff are reporting high levels of stress or pressure in the workplace, and neutral scores in the Staff Survey indicating a lack of awareness of support. There is also significant concern about high levels of stress and mental health problems in our student cohorts that affect staff. Our plans address this by explicitly rolling out 'mental health toolkit' training throughout the Faculty and emphasising the benefits of mutual support in a diverse workplace.
3. **Work/life balance.** As is common in the sector our staff are reporting dissatisfaction with the balance between work and home life and an inability to meet the requirements of our job without regularly working excessive hours. We will address this through modelling behaviours; high profile Athena SWAN (and other) events that celebrate a balanced approach; and an emphasis on quality of approach to academic work thus improving efficiency and freeing up time.

Develop all staff

1. **Performance management.** Appraisal rates are consistently ~95% and our emphasis has moved to improving quality through training appraisers and the use of an additional checklist. All academic and research staff are now assessed for promotion every year and Faculty-wide transparent and standard procedures are implemented. At a central level we monitor performance of any new hires against business plan for a minimum of two years.
4. **Focus on postdoctoral research staff.** The PRES survey indicates some concerns over career progression, career advice and transferable skills training in this cohort. We will increasingly focus on quality of training and experience for this group, including provision of a clear and transparent pathway of support through schemes such as Career Development Fellowships towards personal independence. This will include pathways to support both retention and departure from the Faculty.
5. **Leadership training.** We have invested in the Future Leaders programme for the last two years, with successive Life Sciences leaders coming through. We will continue to invest in this programme in a gender-balanced way, seeking to extend leadership training opportunities to a diverse range of staff including professional services teams.

Modest investment in new or replacement mission-critical academic staff

Our overall approach is one of significant restraint with a static or slightly increasing (SWC) academic headcount. Within Biosciences there will be significant numbers of staff retirements in the planning period, most of which are critical for our teaching excellence (and income). In the next three years we therefore anticipate at least 6 potential replacements for such retirements, and we will meet these through a combination of proleptic appointments and external recruits. Similarly, we also need to recruit replacement staff in other grades and positions where they play mission-critical roles in research or education delivery.

In addition to these planned replacements, we will deliver modest investment (or re-investment where possible) in key interdisciplinary or emerging areas in line with our academic and financial sustainability strategies:

1. We will replace or refresh **teaching and research capacity in genetics and biodiversity**, accounting for recent staff departures while preparing for the Nature-Smart Cities programme at QEOP and a future (17/18) focus on a Centre for Life's Origins and Evolution (CLOE)
2. We will complete previously planned recruitment to the **Centre for Biodiversity and Environmental Research** at Lecturer/Senior Lecturer level, providing a full complement of staff for this major interdisciplinary initiative.
3. We will provide **Developmental & Stem Cell Biology leadership** through a senior appointment to replace retiring Faculty, aiming to provide new energy and direction in this very important area.
4. The **Sainsbury Wellcome Centre & Gatsby Computational Neuroscience Unit** will continue to recruit academic staff reflecting increased resource allocated following the recent excellent GCNU QQR, and the continuing resourcing of the SWC now that it is open. These will all be accommodated within existing Estates footprint and are fully cost-recovered through external grant funding.
5. We will build interdisciplinary capacity in **Drug Discovery** (replacing Professor Paul Fish) & **translational neuroscience** associated with the School of Pharmacy, partnering with the ARUK Drug Discovery unit and the SLMS Translational Research Office. This will include funding for a Drug Formulation initiative.
6. We will continue to participate in the **SLMS Excellence Fellowship scheme** which has delivered a cohort of outstanding early career researchers delivering both excellent research and leveraging significant (sustainable) research and personal fellowship income following on from their core funding.

6. Internal enablers, barriers and operational impact

Our Faculty is now critically dependent on staff and business processes associated with central Professional services to deliver its plan. This dependency has increased since 15/16 due to the maturing of our cost savings efforts within Faculty that have delivered an on target 15/16 forecast position. Future cost savings will require improvement in **business processes** within central services and a significant barrier to future financial sustainability is the lack of **business intelligence** needed to carry out the next wave of cost savings improvement. We are investing considerable effort in working with central services at all levels to enable progress.

1. **Research Services.** We currently lack business intelligence on the areas we have identified where sustained effort will enable us to improve our financial sustainability. We lack effective reporting tools for reporting overhead recovery in real time; identifying PIs who may require assistance in securing research funding; listing direct cost recovery of salaries by PI; providing detail on the extent to which our PIs collaborate on grant applications. We have established manual workarounds for many of these in cooperation with Research Services but this is currently a limiting factor for improving quality and financial sustainability.
2. **Admissions.** We depend on effective partnership working with central services to meet our admissions targets but missed these in 15/16 in part due to inflexibility of the centralised processes. In discussion with Admissions this has been resolved and a business process put in place to address targets in 16/17. The effectiveness of our partnership working will determine whether we meet our undergraduate targets for tuition fee income and diversity.
3. **Estates - footprint.** Following the 15/16 planning round we have put in place in collaboration with Estates an annual business process to conduct a Faculty-wide space audit and update of FAMIS. Estates faced significant challenges completing this process but we reached a satisfactory conclusion with a reduction in our FAMIS estates footprint by 15% in 15/16. Future progress is dependent on this process continuing on an annual basis as we continue to reduce our estates footprint and hand back space.
4. **Estates – room booking.** We have been working closely with Room Booking to try and ameliorate some of the adverse consequences of late room changes on our student experience but this has been challenging in 15/16 and we predict our NSS will be adversely affected. We are working with the central team to improve module confirmation numbers but our suggestions to improve student experience by allowing for module selection in the year before a student takes the module requires SITS development for which Estates and SRS lack capacity.

5. **Finances.** Our financial reporting and prediction has improved dramatically over the last three years and is well integrated across the School and with central Finance. To make further progress, we require capacity to undertake detailed modelling and options appraisals of large-scale financial changes, and the capacity to carry out 'deep dives' to identify specific areas of activity requiring increased focus to establish financial sustainability.
6. **Human Resources.** We have completed execution of a major ERVS plan over the last three years with HR support. We depend upon effective interaction with HR to deliver the next phase of staff development with flexible retirement. We also are limited in developing quality of leadership through continuing challenges developing PAR to allow a focus on quality and goal setting;

The main barriers to delivering our vision and plan

The four barriers that are both pervasive and important are:

1. **Lack of business intelligence** on a real-time basis to enable focus on areas requiring additional work to establish financial sustainability.
2. **Central IT** support systems that are not always designed with the Faculty end-users in mind and consequently often cannot deliver the information required to assess, monitor and promote financial sustainability. We are reverting to manual workarounds in many cases which require staff time and are less reliable and accessible.
3. **Complicated business processes** which can add extra layers of accountability without improving effectiveness or efficiency. We wish to help redesign business processes around the end-user who is often a time-poor academic seeking to deliver effective teaching, research or impact.
4. Insistence on **uniformity of approach** across Faculties regardless of changes already implemented and the nature of the respective Faculty business activity. The multiplicity of UCL Faculties is often raised in our interaction with central Professional Services as a reason why improvements in business processes cannot be delivered rapidly, due to the need to secure wide consensus across a large number of Faculties. We would encourage an approach that tolerates a degree of heterogeneity and wish to work with central services to deliver consensus, as many of the changes we require to make further progress will require such an approach.

In addition, there are two other important barriers/enablers

- **Staff morale and communication.** Without the full and enthusiastic engagement of academic, research and professional services staff we will not realise our vision. These issues are apparent in the 2015 Staff Survey, although not uniform across our Faculty, and are explored further in the 'Staffing' section below. We have an active programme of engagement at a Faculty level to improve the situation and further actions will be taken as we respond to the 2015 Staff Survey findings.
- While **estates provision** is generally good across our Faculty and we have optimised our space footprint over the last year (with a fall of ~10% in overall footprint), there are important 'pinch points' where space constraints are affecting our ability to deliver financially sustainable academic excellence. For example, the MRC/UCL Laboratory for Molecular Cell Biology is now significantly space-constrained in delivering the interdisciplinary imaging and cell biology opportunities (including with the Francis Crick Institute) highlighted elsewhere. Similarly, the Centre for Macromolecular Machines (a major partnership with Birkbeck) will have potential estates requirements over the next ten years should it continue to grow in teaching and research success and impact. These are being addressed through the planning framework but will depend on funding and prioritisation being possible.
- **Interdisciplinary activity** is a particular focus of this strategic operating plan where any new investment is to be made. This will be a significant enabler of our financial sustainability because it will target new areas of academic excellence that link our Faculty to others across UCL, delivering novel and financially sustainable activities with global impact. The Metabolism & Society @UCL PSDF proposal associated with this plan is an excellent example of one such area we wish to encourage as a major enabler.

7. Assessing performance

We are aiming to achieve a universally high level of academic excellence throughout our Faculty, regardless of staff category or operating unit. We are targeting an overall contribution rate consistently in excess of 27% on

overall income (and over 50% on core income, perhaps a better measure given the increasing planned research spend on the Sainsbury-Wellcome Centre during the planning period affecting our KPIs)

Education

- We anticipate a static NSS as improved teaching quality, feedback and research-embedded teaching is balanced by continuing challenge with satisfactory rooming and quality of AV provision
- We are targeting an improved PRES through focus on PG supervision, quality of careers advice and general transferable skills training reflecting the particulars of our PRES feedback
- Employability and SSR are both high and we have no plans to target higher (or lower) levels
- We plan to broadly maintain the balance of our student population with a slight drift towards higher PGR and higher overseas (but significant variability between courses)

Research

- The overall goal is to improve quality while maintaining quantity of our research activity
- We aim to provide access to an outstanding research environment, resources and facilities to maximize research productivity and impact.
- We are targeting trend growth in research grant income and a sustained level of new research applications at double the targeted research grant income
- PGR student load is highest in SLMS (and 2nd highest in UCL) at 1.7 per eligible FTE (note different definitions of this figure in the KPIs); we have no plans to increase
- Research overheads are the highest in SLMS; we will continue to target further increase where feasible
- In addition to the UCL KPIs we will monitor direct cost recovery of grants

International

- Partnership working [international consultancy income, type 2 partnerships] is expected to increase particularly through consultancy in the School of Pharmacy

Staff

- We will target a higher net diversity through vigorous engagement with Athena SWAN
- Staff engagement reflects the current change process towards financial sustainability. We will target higher engagement through promoting bidirectional communication and dialogue
- In addition to the UCL KPIs we will monitor performance of new recruits against business plan

Financial performance & efficiency

- We will target an overall contribution rate of between 28-35% on overall income and **over 50% on core income** although there will be acknowledged variability between Divisions. The increased research spend as the Sainsbury-Wellcome Centre comes on stream will dilute our overall contribution rate but contribution on core is maintained and absolute levels of contribution will rise.
- Financial Efficiency [teaching income per academic, research grant income per academic, total staff costs as percentage of total income] are high by external benchmarking (except where noted above) and relative to SLMS peer Faculties. We will seek to maintain these figures while improving research grant income per academic in School of Pharmacy
- Space volume is relatively high, reflecting our major platform technologies and 'wet lab' scientific needs. We will target a reduction of 5% in overall space requirement. Specific areas such as our occupancy of BMA House (School of Pharmacy) require review and resolution.
- Space efficiency has improved significantly since 14/15 and we will target contribution per sq M > 1.0

In addition to these measures, our overall assessment of performance will use a combination of quantitative and qualitative sources. We will encourage informal feedback; reflect upon the staff survey, monitor appraisal outcomes and where appropriate pursue exit interviews. This reflects our core belief that academic excellence is hard to capture and therefore relies on multi-source feedback, including a qualitative assessment of performance.