Seamless Training Programme

DERMATOLOGY

(A) INTRODUCTION

The Dermatology Seamless Programme aims to train a group of dermatologists who are well grounded in research and basic science. It is designed to attract young doctors who have research and academic interests. Such a group is needed to support dermatology research into the future. It is envisaged that there will be a maximum intake of 3 Seamless track trainees a year, therefore only the best will be selected.

The Dermatology Seamless Programme will comprise of 3 years of pre-Advanced Seamless Training (AST) followed by 3 years of AST. There will also be necessity for an additional 6 months rotation to GM or Geriatric medicine (GRM) in the AST phase of the training, with 2 months GM/GRM rotation per year.

Applications for Seamless Training open in January/February and the interview would be held in March each year. Successful applicants would begin their traineeship in July of each year. The application period may subject to changes by JCST.

ENTRY QUALIFICATIONS

Candidates for the Dermatology Seamless Programme would be doctors who already have research training, or have clearly expressed interest to pursue a career in research. These would include graduates from Duke-NUS GMS, MD-PhDs, and doctors who have spent significant amount of time in research positions, including time spent in research as an undergraduate. Candidates must present their research experience and projects to the Dermatology selection committee as part of the interview process.

Trainees may enter the programme from PGY2.

SELECTION CRITERIA OF APPLICANTS

Applicants who are interested in research might be given preference in selection.

Dermatology RAC will shortlist the applicants based on the criteria set out below for the elimination round. Short-listed applicants will be called up for interviews and further assessment. The elimination round and the interview will be held in the first quarter of each year.

Elimination round criteria:

- Final Year Grades in Medicine and Surgery
- HOD Service grades (HO and MO postings)
- Research experience and training
- Scientific publications
- Research and conference presentations

Applicants are required to submit their CVs (including required information above) together with the application forms.

Interview Criteria:

- Presentation Skills**
- Collegiality and Teamwork
- Personal Qualities and Vision
- Communication skills
- Professionalism

(B) PRE-AST TRAINING (Basic Seamless)

- 3 years

1. Rotation through medical and surgical postings relevant to Dermatology
2. At least 1 month Geriatric Medicine posting stipulated by SAB
3. Self-directed learning in Basic science, Clinical science and Pharmacology (as per the Australian College of Dermatologists curriculum)
4. Self-directed learning in Internal Medicine
5. Self-directed learning in Dermatology
6. Participation in academic activities relevant to Dermatology (in postings or parent dermatology department)
7. Research training

(1) HOSPITAL ROTATION POSTINGS

Trainees will have to go through 3 Mandatory and 1 Preferred Medicine postings. The postings are as follows:

Mandatory Postings

- Internal Medicine * (ideally this should be the first posting in the traineeship)
- Emergency Medicine
- General Surgery or Plastic Surgery
- 1 month GRM posting (this can be undertaken as part of the Internal Medicine posting)

Preferred Postings

- Rheumatology and immunology
- Infectious Diseases
- Haemato-oncology
- Pediatrics
- Dermatology

Others e.g.

- Renal Medicine
- Respiratory Medicine

 Endocrinology
 Gastroenterology

(2) CURRICULUM

2.1 Clinical Sciences and Pharmacology Curriculum of the Australasian College of Dermatologists

For more information, please refer to Annex A.

2.2 General Medicine

 Cardiology

Coronary artery disease

Peripheral vascular disease

Heart failure

Hypertension

 Endocrinology

Diabetes

Thyroid diseases

Adrenal dysfunction

Male and female hormone dysfunction

Lipid disorders

Metabolic syndrome

 Gastroenterology

Hepatitis

Inflammatory bowel diseases

Peptic ulcer disease

 Hemato-oncology

Lymphoproliferative diseases

Myeloproliferative diseases

Malignancy screening

Anaemia

Hypereosinophilia

Thrombosis and hemorrhage

Transplantation medicine

 Infectious diseases

HIV

The non HIV immunocompromised hosts

Sepsis

 Neurology

Autonomic nervous system dysfunction

Peripheral neuropathies

Myopathies

Strokes

 Paediatrics

Neonatal medicine

Child development

 Renal medicine

Glomerulonephritis

Renal failure

 Respiratory medicine

Asthma

Tuberculosis

Sarcoidosis

Respiratory failure

 Rheumatology

Lupus, dermatomyositis, scleroderma

Vasculitides

Arthritides

Autoinflammatory syndromes

Osteoporosis

 Others

Pyrexia of unknown origin

Nutritional deficiencies

2.3 Surgery Relevant to Dermatology

Prior to Dermatology training, it would be mandatory for candidates to have gone through a posting in general surgery or plastic surgery. Experience in a surgical posting will establish the foundation for future training in Procedural Dermatology.

Alternatively, to have attended a Basic Surgical course

The knowledge to be acquired:

 Surgical anatomy

Anatomical landmarks – recognizing the danger zones for arterial bleeding, nerve transection

Depth of initial incision, proper level of undermining, and placement of suture depending on underlying anatomy

Knowledge of sensory nerves for effective regional nerve blocks

Knowledge of anatomy and drainage of the lymphatic system

Cosmetic units of the face and skin tension lines that will be used to plan a procedure

 Anaesthesia

Preoperative sedation, local and regional anesthesia

Structure and physiology of anesthetics

Infiltrative techniques (local, field block, tumescent, nerve blocks)

Indications for conscious sedation and general anesthesia

 Preoperative, perioperative, and postoperative evaluation.

Medical, surgical, social history, list of current medications, thorough physical examination, counseling, informed consent

Indications for antibiotic prophylaxis

 Surgical techniques

Incision and drainage

Shave, saucerization

Punch biopsy

Incisional and excisional biopsy

Undermining

Skin closure: suturing technique and suture materials

 Wound healing and dressings

Types of wound: acute vs chronic

Phases of wound healing

Factors affecting wound healing

Optimizing outcomes

Types of dressings and techniques of application

Post-operative care and wound care

2.4 Research Training

The 3rd year of the pre-AST phase is reserved for research training / courses. This may be from 6 to 12 months. This is preferable to be after completion of the clinical postings component of the pre-AST seamless phase. Trainees can choose from –

a. Local courses:_

- Masters of Clinical Investigation (YLL SOM)
- Masters in Public Health (SSH SPH)
- Graduate Diploma in Applied Epidemiology (SSH SPH)

b. Be attached to a research laboratory

(3) READING LIST

Clinical Sciences and Pharmacology Curriculum:

Please refer to Annex A.

General Medicine Curriculum:

 Harrison's Principles of Internal Medicine, 17th Edition

(4) SUPERVISORS AND TRAINING LOG BOOKS

4.1 Supervisors

All seamless trainees will have a supervisor from the department that they are rotated to, who will interact with them on a day-to-day or weekly basis. Training supervisors will submit assessment reports at 3 months and at the end of posting to the Joint Committee on Specialist Training. In addition, trainees will have a supervisor from the dermatology department that they have been accepted in, for guidance and counselling.

Meetings will be arranged with the dermatology supervisors/team on a regular basis.

4.2 Training Log

Each trainee will complete a training log of cases seen and procedures done every 3 months. Supervisors will assess their progress and performance during the training period and assist the trainee in identifying learning needs. The assessment forms will be signed off by both the supervisor and HOD of the posting department and the supervisor from the dermatology department.

Documents relating to the assessments are in the Training Log Book which is sent to the trainee at the commencement of the programme.

(5) INTERMEDIATE EXAMINATION

At the end of 3 years, a trainee must pass the Intermediate Examination before he/she can proceed with the Dermatology AST training.

The Intermediate Examination consists of the following components:

i. Clinical Sciences (Online Assessment Modules) - Australasian College of Dermatologists
ii. Pharmacology (Online Assessment Modules) – Australasian College of Dermatologists (wef 2017)
iii. Clinical Exam in Internal Medicine - Chapter of Internal Medicine

iv. Basic Dermatology Surgery (IM-Dermsurgery) - Dermatology Residency Advisory Committee

v. ITE IM – Academy College of Physicians

Australasian College of Dermatologists Online Assessments

From 2017, the MCQ paper of the Pharmacology Examination will be incorporated into the Clinical Sciences (Online Assessment Modules). These modular assessments consist of short questions, essays and projects, and can be attempted by the trainee in any order. All modular assessments must be completed by Year 3 of training.

In-training Examination (IM ITE) of the American College of Physicians.

It is held once a year in October, and is an online examination lasting for 8 hr, comprising of 340 MCQs and synchronised with US Internal Medicine Residents examination timings.

Examinations in Internal Medicine and Basic Dermatologic Surgery

This consists of OSCE style clinical examinations in Internal Medicine and Dermatologic Surgery, organized by the Chapter of Internal Medicine and Dermatology RAC respectively. The examination format comprises:

1) General medicine cases – 1 long case and 2 short cases

2) Theory paper consisting of the In-Training-Examination (ITE) in internal medicine

3) Dermatologic surgery – stations testing knowledge of basic dermatologic surgery

The local examination will be held in October and April each year, if there are trainees eligible to take the examination. Trainees are allowed to sit for the examination after entry into the programme, provided they have completed the Internal Medicine posting. Trainees will retake the examination 6 months later if they fail either one or both components of the internal medicine examination. They must pass both the clinical examination in internal medicine and basic dermatologic surgery, and theory paper by the end of the 3-year training period.

5.3 Examination Pass

Trainees must pass all components of the Intermediate Exams.

Trainees who cannot achieve a pass mark will have to retake the section they have failed in.

5.4 Appeal Process

Trainees who do not pass the Intermediate Exams by Year 3 of training will not be allowed to proceed with AST training. However, they may appeal to the RAC for extension of the pre-AST training under extenuating circumstances and provided they have shown good performance throughout the 3 years training period, as assessed by their supervisors and training director. Subject to RAC and JCST approvals and the approval of the host institution, the pre-AST training period may be extended by a year to allow the trainee to fulfil the examination requirement. Trainees will be designated MOT (Conditional) and postings during this period will be determined by RAC in consultation with MOHH.

(C) AST TRAINING (ADVANCED SEAMLESS)

The curriculum for the Advanced Seamless will follow that of the Senior Resident.

(1) INTRODUCTION

The Dermatology Advanced Seamless Programme shall be a competency-based programme designed to meet specific outcomes in the 7 key competencies of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills professionalism, system-based practice and faculty development.

The programme includes 3 years of dermatology training which is preceded by broad-based clinical training programme. The 3-year Dermatology Advanced Seamless provides continuous base of active participatory study and experience in dermatology and rotation through the various core dermatology subspecialties. There will also be an additional 6 months rotation to GM or Geriatric medicine (GRM), with 2 months GM/GRM rotation per year.
The Dermatology Advanced Seamless programme is designed on a modular basis. In the first year (D1), emphasis shall be on general dermatology, dermatopathology, basic surgical procedures and sexually transmitted infections. In the second year (D2), trainees shall be given clinical exposure to subspecialties in dermatology, including procedural dermatology, contact and occupational dermatoses, cutaneous infections, immunodermatology, paediatric dermatology, photobiology and phototherapy and inpatient dermatology. In the third year (D3), the emphasis shall be on consolidation of knowledge and attainment of independent professional competence.

(2) PROGRAMME OVERVIEW

The 10 core dermatology modules have been selected based on the major dermatology themes reflecting importance in future clinical practice.

The core dermatology modules include:

I. General Dermatology
   - Acne Vulgaris
   - Eczema / Dermatitis
   - Urticaria / Angioedema
   - Papulo-squamous disorders
   - Disorders of pigmentation
   - Skin Infections – viral, bacterial, fungal etc
   - Hair Disorders
   - Nail Disorders
   - Disorders of skin appendages
   - Skin in systemic illnesses
   - Skin disorders in special populations – elderly, pregnant, immunocompromised
   - Psychodermatology
   - Epidemiology and Public Health in Dermatology

II. Sexually Transmitted Infections
III. Dermatopathology
IV. Procedural Dermatology
V. Contact & Occupational Dermatoses
VI. Immunodermatology
VII. Paediatric Dermatology
VIII. Photobiology, Phototherapy and Psoriasis
IX. Inpatient Dermatology
X. Skin cancers including cutaneous lymphomas

Trainees shall be assessed by their teachers / supervisors to have achieved the desired competency outcomes before being certified to have successfully completed the module. The formative assessment of competence within each module shall take the form of a series of mini- clinical evaluation exercises (mini-CEXs).

Trainees shall complete all the core training modules before being allowed to take the final exit examination. If the trainee fails to fulfil the requirements set out for a particular module, the trainee shall be required to re-do the module until the requirements as set out are met.

Quarterly reviews by the Trainees' supervisor shall be carried out to ensure that progress towards attaining training objectives and competencies is made.

(3) TRAINING REQUIREMENTS

The training programme aims to achieve the desired outcomes in the 7 key ACGME competencies of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, system-based practice and faculty development.

The 7 key competencies identified are:

A. Patient Care

Early in their education, trainees must be competent in basic dermatology clinical skills required for the diagnosis, evaluation and proper management of common and uncomplicated cases. As trainees progress in educational level, they should be able to demonstrate patient care skills with non-routine, complicated patients and under increasingly difficult circumstances. Trainees shall learn how to engage compassionately and communicate effectively with patients with regards to diagnosis, management, counselling and health education. Trainees should learn to manage the patients holistically instead of in a siloed manner.

To achieve this, the trainees shall:

i) Attend at least 75% of clinic sessions scheduled:

- Present and discuss all new cases with the Consultants
- Present and discuss all complex review cases with the Consultants

ii) Perform the required number of case reports and presentations.

B. Medical Knowledge

Trainees must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.

To achieve this, the trainees shall:

i) Attend at least 75% of all trainees-directed academic activities which include:

- Tutorials, book / research / journal clubs
- Basic science lectures
- Clinical-pathological conferences
- Conference updates
- Clinical and histological slide reviews
- SR case presentations and literature reviews
- Masterclasses

ii) Complete the core curriculum of each module via didactic teaching sessions, active case discussions with faculty and self-directed learning.

C. Practice-based Learning and Improvement

Trainees must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

To achieve this, the Trainees shall:

- Identify strengths, deficiencies, and limits in their knowledge and expertise
- Set learning and improvement goals
- Identify and perform appropriate learning activities
- Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
- Incorporate formative evaluation feedback into daily practice
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;
- Use information technology to optimize learning
- Participate in the education of patients, families, students, trainees and other health professionals.

D. Interpersonal and Communication Skills

Trainees must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

To achieve this, the Trainees shall:

- Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
- Communicate effectively with physicians, other health professionals, and health related agencies
- Work effectively as a member or leader of a health care team or other professional group
- Act in a consultative role to other physicians and health professionals;
- Maintain comprehensive, timely, and legible medical records

E. Professionalism

Trainees must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

To achieve this, the Trainees shall show:

- Compassion, integrity, and respect for others
- Responsiveness to patient needs that supersedes self-interest
- Respect for patient privacy and autonomy
- Accountability to patients, society and the profession

- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

F. System-based Practice

The Trainee must appreciate that he is part of a larger system and be aware of the other inter-related services contributing to the overall care of the patient. It is important for the trainees to appreciate the core values of professionalism and collegiality and develop a healthy and positive working relationship with fellow trainees, faculty, nursing and other allied health staff.

To achieve this, the Trainees shall:

- Work effectively in various health care delivery settings and systems relevant to dermatology
- Coordinate patient care within the health care system relevant to dermatology;
- Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate
- Advocate for quality patient care and optimal patient care systems;
- Work in inter-professional teams to enhance patient safety and improve patient care quality
- Participate in identifying system errors and implementing potential systems solutions.

G. Faculty development

Trainees as Future Teachers is a core competency. Trainees have to be trained as effective role models, teachers and leaders to junior doctors, other healthcare trainees and medical students. Trainees are expected to:

- To teach and guide junior trainees in clinical skills, procedures, and patient care
- Participate in co-ordinating medical students and junior trainees teaching programs

(4) SUPERVISION AND WORK HOURS OF TRAINEES

I. Supervision

All AST will be supervised by a designated supervisor. 20% of AST's time must be protected for training.

II. Work Hours

Work hours can be defined as all clinical and academic activities related to residency training. Work hours must be limited to 80 hours per week, averaged over a month, including all on-calls. Trainees must be allowed 1 day (i.e. 24 continuous hours) in 7 days free from all clinical administrative and academic responsibilities, averaged over a month. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and after in-house call.

In-house call must occur no more frequently than every third night, averaged over a four-week period. No new patients may be seen after 24 hours of continuous duty. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Trainees may continue to be on duty

for up to six additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care.

Work hours must be reported in the designation system (e.g. New Innovations) and tracked by the Programme Director.

(5) ASSESSMENT AND FEEDBACK

I. Log of operative / clinical experience

All Trainees are expected to keep a log of their operative / clinical experience in the designated case log system.

II. Assessment

The supervisor's evaluation of the Trainees should be performed at the end of every rotation using the designated form and then submitted to the RAC for review.

III. Feedback

Trainees should perform a yearly evaluation of teaching faculty and the training programme using the designated forms. These forms must be submitted to the RAC and kept absolutely confidential.

IV. Examinations

Evaluation shall be both formative as well as summative. The following table provide selected methods of formative evaluation and evaluators used for assessing trainees competence in each of the seven required competencies. Summative assessment shall take the form of the Trainees/Residents Annual Assessment and the Exit Examination conducted at the end of the 3-year dermatology education by an appointed panel comprising of at least 3 RAC members in the presence of an external examiner.

Competency	Assessment Method	Evaluator
Patient Care	Direct workplace / procedure observation (mini-CEX)	Unit chief, Subspecialty Consultant
	Observed histories and physicals	Attending consultant
	Practice audit	Evaluation committee
Medical Knowledge	American Board of Dermatology BASIC examination	American Board of Dermatology
	End of module MCQs	Unit chief, Subspecialty Consultant
	Monthly clinical slide quiz	Faculty members
	Monthly dermatopathology quiz	Dermatopathologist

Competency	Assessment Method	Evaluator
	Annual clinical examinations	Panel of examiners
	Annual dermatopathology examination	Chief of Dermatopathology
Practice-based learning & Improvement	CPIP project	Team leader
	Formulation of evidence based clinical management guidelines	Faculty members
Interpersonal & Communication Skills	Patient satisfaction survey	Patient
	360 degree appraisal	Other residents, faculty members, nurse, clinic executives
	Peer assessment	Peers
	Presentation skills during DSS and NSC annual scientific meetings	Faculty and external evaluators
Professionalism	Patient satisfaction survey	Patient
	360 degree appraisal	Other residents, faculty members, nurse, allied health professional
	Peer assessment	Peers
Systems-based Practice	360 degree appraisal	Other residents, faculty members, nurse, clinic executives
	Medical audit	Evaluation committee
	Annual interview with HOD	HOD
Faculty Development (Senior Trainees as future Educator)	360 Multisource Feedback	Other Senior Residents, faculty members, nurse, allied health professional
	Teaching Feedback	Other Senior Residents, faculty
	Undergraduate Student Feedback	Attached undergraduates during their 2-week dermatology posting

(D) GENERAL GUIDELINES

Please refer to Annex 1 for General JCST Guidelines on the following :

- Leave Guidelines
- Training Deliverables
- Changes to Training Period

- Part-time Training
- Overseas Training
- Withdrawal of Traineeship
- Exit Certification

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Annex A

2.1 CLINICAL SCIENCES AND PHARMACOLOGY CURRICULUM OF THE AUSTRALASIAN COLLEGE OF DERMATOLOGISTS

LEARNING OUTCOME

Develop, apply and maintain the relevant knowledge base of theoretical and practical clinical sciences and pharmacology underpinning the practice of Dermatology.

2.11 Clinical Science Modules

Course Content

1. Anatomy
2. Biochemistry and physiology of the skin
3. Embryology
4. Immunology
5. Autoimmunity
6. Role of the Vascular System in Immunity and Wound Repair
7. Epidemiology and Evidence Based Medicine
8. Genetics
9. Electromagnetic Radiation (EMR)
10. Electrosurgery
11. Microbiology (basic sciences)
12. Parasites and Protozoa

2.12 Pharmacology

For each of the drugs/agents listed below, describe and discuss the:

- structure
- absorption, biological half-life and bioavailability
- metabolism and excretion
- mechanism of action
- indications
- contraindications
- adverse effects
- drug interactions
- monitoring guidelines
- therapeutic guidelines (including pregnancy and breastfeeding categories)

 Systemic drugs for infectious diseases

Systemic antibacterial agents

Systemic antifungal agents

Systemic antiviral agents

Systemic anti-parasitics

 Systemic immuno-modulatory and antiproliferative agents

Systemic corticosteroids

Methotrexate

Azathioprine

Mycophenolate mofetil

Cytotoxic agents

Agents relevant to skin cancer therapy (vemurafenib, MEK inhibitors, checkpoint inhibitor immunotherapy, hedgehog pathway inhibitors)

Cyclosporin and related drugs

Dapsone

Anti-malarial agents

Systemic retinoids

Interferons

 Drugs used in conjunction with ultraviolet or visible light

PUVA photochemotherapy (topical and systemic)

Extracorporeal photochemotherapy

Photodynamic therapy

 Biological therapeutics

Tumour Necrosis Factor (TNF) inhibitors

Other available biologic agents used to treat skin disease e.g. IL12/23 inhibitors, rituximab, omalizumab, alemtuzumab

 Miscellaneous systemic drugs

Antihistamines

Beta blockers

Vasoactive and antiplatelet agents

Antiandrogens

Psychotropic agents

Intravenous Immunoglobulin therapy (IVIG)

Anti-cholinergic agents and attenuated androgens
Colchicine, nicotinamide, potassium iodide, androgens
Thalidomide, clofazamine
Nonsteroidal anti-inflammatory drugs (NSAIDs)
Biotin, Vitamin D and E, Zinc
Fumaric acid
Anti-epileptics and other agents used in chronic pain
Anticholinergics

 Topical drugs for infectious diseases
Topical antibacterial agents
Topical antifungal agents
Topical and intralesional anti-viral agents
Antiparasitic agents

 Topical immuno-modulatory and antiproliferative drugs
Topical and intralesionsal corticosteroids
Topical retinoids
Topical and intralesional chemotherapeutic agents
Topical contact allergens
Topical calcineurin Inhibitors
Topical vitamin D3
Topical imiquimod

 Miscellaneous topical drugs
Sunscreens
Therapeutic shampoos, soaps and other skin cleansers
Alpha-hydroxy acids
Agents used for hyperkeratosis
Insect repellents
Topical antioxidants, including vitamin A,C,D, E and K
Topical haemostatic agents, including aluminium chloride and ferric subsulfate
Other topical agents, including minoxidil, anthralin (dithranol)
Bleaching agents/skin whiteners
Topical dressings
Topical tars
The principles of:
different types of formulations including creams, ointments, gels and emulsions

extemporaneous formulations and ordering preparations to be made.

 Cosmeceuticals

Minerals - copper, selenium and zinc

Antioxidants

Growth factors

Peptides/proteins - signal, carrier and transmitter blocking

Botanicals - antioxidants, anti-inflammatory and soothing agents

Moisturisers - occlusive, humectants and emollients

Be familiar with major new agents and methods (eg. nanotechnology) reported in the literature that have potential clinical relevance.

 Injectable and mucosal routes of drug administration

Local anaesthetics, including injectable local anaesthetics, topical anaesthetics, co-injectable vasocontrictors

Corticosteroids

Mucosal therapeutics

Cosmetic applications including botulinum toxin A and filler agents.

(3) READING LIST

Clinical Sciences and Pharmacology Curriculum:

 Bolognia JL, Jorizzo JL, Schaffer JV (eds). Dermatology, 3rd edn, revised. London: Saunders, 2012.

 Goldsmith LA, Katz SI, Gilchrest BA, Paller A, Leffell DJ and Wolff K. Fitzpatrick's Dermatology in General Medicine, 8th edn revised. New York: McGraw-Hill Medical.

 Wolverton SE. Comprehensive Dermatologic Drug Therapy, 3rd edn revised. Philadelphia: Saunders, 2012.

 Salasche SJ, Bernstein G and Senkarik M. Surgical Anatomy of the Skin. Maidenhead: Appleton & Lange, 1998. (to contact college)

 Australian College of Dermatology Notes- Principles and Practice of Physical Therapy Treatment in Dermatology (to contact college)

 R Sinclair - Introductory notes to cryotherapy (to contact college)