

# SKIN

A HISTORY

150 YEARS OF  
ST JOHN'S INSTITUTE OF DERMATOLOGY



### THE AUTHOR

Jeremy Laurance is a writer on health issues. He is a former Health Editor of The Independent and was previously health correspondent of the The Times, Sunday Times, and Sunday Correspondent. He has covered the specialism for more than 20 years. He was named Specialist Writer of the Year in the 2011 British Press Awards.

We wish to thank all colleagues who have contributed to this celebratory book especially Gary Mulcahy for his help providing images, Andrew Griffiths for his editorial review, Anita Knowles and Megan Elliott who have kept everyone to task and Andrew Younger and Ana Comsa at AYA-Creative for their design skills. Designed and produced by Andrew Younger of AYA-Creative and Printed by Blue Sky Design & Print. Published by Guy's and St Thomas' NHS Foundation Trust. © Guy's and St Thomas' NHS Foundation Trust. No part of this publication may be reproduced by any means without prior written permission of the authors. A full list of acknowledgements is detailed on pages 127 and 128. **ISBN 978-0-9934493-0-7 Skin - A History - 150 Years of St John's Institute of Dermatology.**

**CONTENTS**

FOREWORD	by Professor Sean Whittaker	5
CHAPTER 1	The first 150 years	7
CHAPTER 2	The role of inheritance and the care of children	21
CHAPTER 3	The sun: its dangers and healing power	35
CHAPTER 4	The scalpel and the beam of light	49
CHAPTER 5	Cancers of the skin	61
CHAPTER 6	Skin and the immune system	77
CHAPTER 7	Our toxic world: the causes of allergy	91
CHAPTER 8	The nurse's role	107
APPENDIX	St John's staff	123
ACKNOWLEDGEMENTS		127



# FOREWORD

The skin is our largest and most visible organ. It protects the body behind an impermeable outer covering but is itself constantly on view. Patients with skin diseases thus have nowhere to hide. They are condemned to suffer twice – once from the condition and secondly from the public reaction to it.

John Milton, who founded St John's Institute for Dermatology in 1863, understood this. Recognising that his patients had special needs, within two years he had established an evening clinic to cater for the "artisan classes" who risked dismissal from their employment if "it were known they were afflicted with a skin disease."

A sensitivity to the needs of its patients has distinguished St John's ever since. It was not the first hospital for skin diseases in the UK but it quickly established itself as the best. The flow of patients that started as a trickle slowly built up till tens of thousands were flocking through its doors.

Today, 150 years later, St John's is an internationally renowned clinical, research and educational Institute epitomising the tripartite mission of King's Health Partners, our Academic Health Science Centre, and providing a world class service to 10,000 new patients annually from around the country and the globe with the most complex, challenging skin conditions known to medicine.

It has pioneered new treatments and techniques, identified new conditions and deepened understanding of the mechanisms of disease. In doing so it has brought relief to hundreds of thousands of patients.

This book tells the sometimes turbulent story of St John's from its humble beginnings in two rooms in Soho, through its decades of struggle against medical hostility and financial disaster, to the development of the modern Institute with six specialist departments, providing cutting edge treatments and world-renowned research within London's flagship NHS foundation trust, Guy's and St Thomas'.

St John's is today at the forefront of modern, multidisciplinary medical care, poised to exploit breakthroughs in clinical genetics, immunology and personalised medicine that we confidently believe will pave the way to even greater successes over the next 150 years.

Sean Whittaker, Professor of Cutaneous Oncology, St John's Institute of Dermatology, September 2015







# THE FIRST 150 YEARS





1 The Hospital at 49 Leicester Square (1887 - 1905) and 2 (1906 - 1935) 3 The Hospital at 5 Lisle Street (1935 - 1990)  
4 The Hospital at St Thomas' Hospital (1990 - 2015) 5 The Hospital at Guy's (2015)



**It was, by any standards, a difficult birth. St John's Hospital for Diseases of the Skin opened its doors to patients in 1863 – and almost closed them a year later after a dispute broke out among the staff. A second row nearly scuppered the construction of a new building a decade later and minor scandals beset the hospital for the remainder of the 19th century.**

But by the beginning of the 20th century the hospital was treating 8,000 new patients a year, – “far ahead of its rivals in the number of patients it relieved,” according to one account – had rebuilt its out-patients department at a cost of £10,000 and was rapidly becoming established as a national centre of excellence for skin diseases.

By the outbreak of World War II more than 65,000 patients a year were attending and the hospital had to annexe space in institutions up to eight miles away to cope with the demand.

Today it is one of the best known centres for the treatment and study of skin diseases in the world. It is staffed by 36 consultants (of whom six are professors) and 25 clinical nurse specialists who are leaders in their fields, treats 10,000 new patients with the most challenging skin conditions annually and has enjoyed more citations in the research literature than any comparable institution.

### *John Laws Milton*

Its founder, **John Laws Milton**, was a surgeon whose career was cut short by hand eczema. The condition was severe enough to prevent him from operating and that experience appears to have triggered his interest in dermatology. He wanted London to have



John Laws Milton, founder of St John's

a proper hospital for skin diseases and the project became his passion.

Born in 1820, he was in his 40s when he opened his “hospital” in two small rooms at 12 Church Street, Westminster (now Romilly Street, Soho). The hospital was named after St John the Divine and Milton was the only member of staff, attending patients once a week. Why he chose the name St John is unknown.

The hospital was supported by voluntary contributions and its patron was **Lord Chesterfield**. A gold medal awarded annually to outstanding

postgraduate diplomates of St John's still bears Chesterfield's name.

It was not the first hospital for skin diseases in London – there were at least two, the Hospital for Diseases of the Skin in Blackfriars and the Western Dispensary for Diseases of the Skin in Fitzroy Square – but it outlasted them both. The former founded in 1841 closed in 1948 at the start of the NHS and the latter founded in 1852 closed in 1946.

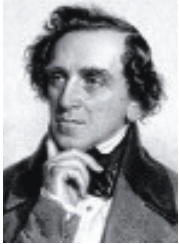
Within two years St John's had moved to 45 Leicester Square – then a neglected, weed-infested garden – where it remained for two decades. Clinics were held daily in the afternoons, with an evening clinic laid on once a week to enable the “artisan classes” to attend “without it being known that they are afflicted with a skin disease.” That way they might avoid dismissal from their employment.

It was an indication of the importance of the emerging specialism of dermatology in providing relief to patients who suffered twice over with their disease – once from the condition itself and twice from the revulsion it typically inspired in others.

The flow of patients started as a trickle but later built up until tens of thousands were flocking through its doors. In its first ten years, St John's treated 20,000 patients. As its reputation grew so did its imitators and London was suddenly afflicted with a rash of skin hospitals. But by 1897 it was said to be “far ahead of the others in the number of patients relieved.”

### *Early battles*

Its success did not come easily. John Milton was not a member of the establishment and did not have a



Tilbury Fox



Erasmus Wilson

high reputation among his peers. Indeed he stirred up controversy and, as already mentioned, the hospital was stalked by scandal during its early decades. There was resentment from generalists about the growth of specialist hospitals in London which were felt to be unnecessarily duplicating the work of specialist clinics in general hospitals for financial gain.

Critics demanded to know why there was a need for a stand-alone skin hospital when there was a perfectly serviceable skin clinic at the local hospital down the road.

In 1864, a year after opening St John's, Milton was joined on the staff by three colleagues – two physicians and a second surgeon by the names of **Tilbury Fox, MD, J. Mill Frodsham, MD, and Erasmus Wilson, FRS**. These were significant medical figures and on 29 October that year, The Lancet described the “formation of a new establishment for skin diseases called (though for what special cutaneous reason we know not) St John's Hospital.”

If Milton thought he and his hospital were on the road to fame and fortune, he was sadly mistaken. He had published a book about the controversial subject of spermatorrhoea – the involuntary and unwanted discharge of semen – and was accused of

abusing his position by holding a lucrative clinic at St John's for the treatment of the condition.

What aroused the ire of the medical establishment was that he described himself on the title page of the 7th edition of his pamphlet, *On Spermatorrhoea*, as “Surgeon to St John's Hospital”. This was too much for his trio of new colleagues who did not want to be associated with the “disease” nor with Milton's pamphlet. A critical and hostile report appeared in the Lancet followed by a second a week later. His colleagues resigned *en masse*.

By 1867, the breach was repaired and two of the three resigning members were back on the staff. Milton was a prolific author, contributing regularly to the *Journal of Cutaneous Medicine and Diseases of the Skin* edited by Erasmus Wilson.

Among his writings were: *On bubo; Death in the Pipe; The stream of life on our Globe; Spermatorrhoea, its results and complications; The pathology and treatment of diseases of the skin; Tartar Emetic in Inflammation of Cellular Tissues*.

He became a fellow of the Medical Society of London, a member of the Harveian Society and a corresponding member of the New York Dermatological Society.

## 49 Leicester Square

The hospital moved twice in the early years, first to No 45 Leicester Square in 1865 and then to No 49, described as a “light and airy” building. By then the square had been renovated and the weeds removed providing the in-patients with a “pleasant place to exercise and stroll.”

In 1873, plans were underway to build a new hospital but were scuppered by another hostile article in The Lancet renewing its attack on the specialist hospitals (exemplifying both “error and egotism”) and criticising the proposed collection of £75,000 for the building. This would “dissipate public money on the creation of special buildings” which would be better spent on the creation of “special departments in the large [general] hospitals”.

Further vitriolic letters appeared, detrimental to the hospital's reputation, and an inquiry was launched into the workings of its haphazard financial accounts. This led, in 1874, to a decision to draw up a Code of Rules and Regulations for St Johns.

By the mid-1870s, the hospital had an imposing list of Royal Governors. But a crisis was never far away and the next one erupted over the hospital's habit of giving priority to patients who paid. The British Medical Journal attacked the practice and a dispute broke out between the Hospital Board and the medical staff, resulting in resignations and



Leicester Square in 1874 after the opening of the new garden providing patients with a “pleasant place to stroll.”



Cartoon published in Judy in 1899 shows Mr Milton trying to encourage the Princess of Wales to remain a Patroness of the hospital.

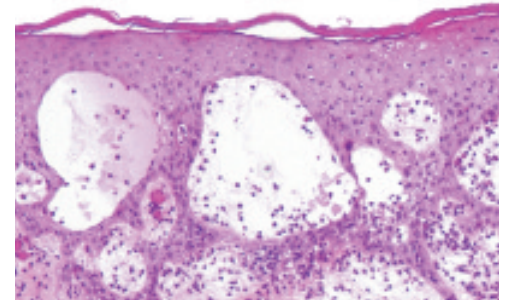
actions for libel. With the hospital struggling to make ends meet and avoid financial ruin, the sustained attacks in the press did nothing to help.

Scandal continued to dog the hospital through the following decade. An appeal to upgrade the building in Leicester Square raised £523 but the Board was later obliged to report that “the proposed alterations were not carried out, although the amount subscribed for the purpose was wholly absorbed.” Donations dropped off and the Princess of Wales, later to become Queen Alexandra, resigned as royal patron. In 1899 a cartoon

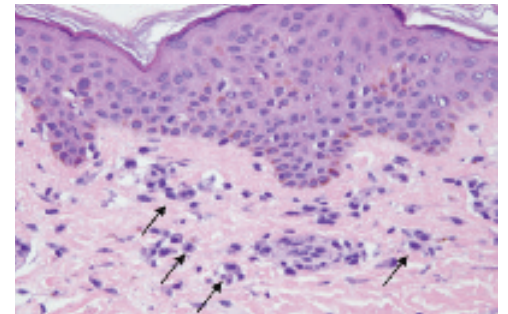
appeared in Judy showing Milton attempting to cajole the Princess into remaining as a patron of the hospital.

Through all his 35 years at the hospital Milton seems to have played a controlling role in the background, shepherding it through its troubles and scandals. He also found time to practise medicine, describing two diseases – *Herpes Gestationes* in 1872 and *Giant Urticaria* in 1876.

His recommended treatment for a case of *Herpes Gestationes* involved: “A quart bottle of stout daily, with at least one or two glasses of wine, rum, and



Herpes Gestationis, a skin disease in pregnancy, described by Milton in 1872



Giant urticaria, described by Milton in 1872

milk at night and beef tea ad libitum”.

In another case, he wrote: “She could not bear even zinc ointment, and I therefore directed that she should be covered from head to foot with linen rags dipped in fresh melted suet.”

In a eulogy published in The Echo on 25 April, 1873, the hospital's tenth anniversary, Charles Mercier, vice chairman, wrote: “It was started by Mr J L Milton, a surgeon who had given diseases of the skin his special attention, and who was struck with the misery those diseases entailed. With the co-operation of several friends he took and





The wax mouldages of skin diseases are the work of Alice Gretener (1905-1986) who attended St John's in 1936 as a medical artist. These compliment the wax mouldages in the Guys Museum by Joseph Towne

furnished a small place in Westminster. The subscription list did not cover more than a quarter's rent, yet, from that time to the present, the St John's Hospital has continued and has gained the confidence of the thinking portion of the public to an unexampled extent .... For ten years Mr Milton has continued to give his services as a professional man to the hospital and devoted all his spare time and much from his private practice to promoting its influence. That London shall have a proper Skin Diseases Hospital is the one idea of his life."

## The School of Dermatology

On 8 October, 1864, an advertisement for an inaugural lecture at St John's appeared in the Medical Times and Gazette. It announced that clinical lectures would be delivered throughout the session and quoted a price of three guineas for "three months attendance of hospital practice".

A report in the British Medical Journal on 22 October congratulated the organisers on the "numbers who attended" and the "ambitious and energetic" way they were pursuing their aims. But two weeks later, Mr Milton's colleagues had resigned leaving him as sole member of staff. It is hence doubtful that the course of lectures was ever completed.

In 1876-77 a new course of lectures was announced – this time free to doctors and medical students. The Annual Report of that year hints at the scale of the hospital's ambition. "The Committee trust that this will be a step towards providing in London a National School of Dermatology."

In 1885 the School of Dermatology at St John's was inaugurated. In-patient accommodation was moved to Markham Square, Chelsea and the space vacated at Leicester Square converted into a Microscope Room and library.

Three years later, in 1888, women medical students were admitted for the first time. A fee was quoted of two guineas a term – the earlier commitment to free courses had proved a step too far. More courses were added over the ensuing decades.



Robert Koch

## A centre of learning

The first research was carried out in 1890 when the treatment for tuberculosis discovered by **Robert Koch**, who won the Nobel prize in 1905, was trialled in cases of *Lupus*

*vulgaris*, the most common skin infection associated with the then widespread disease. Lupus vulgaris was a virulent, ulcerating condition that produced a profusion of nodules, most often on the face and neck. Professor Koch's "fluid", described as "brown and viscid, the colour of iodine" was delivered direct to the hospital by him for the treatment of what was regarded as the "most disfiguring of all" skin diseases. A committee of three, including Milton, was established to "enquire into Professor Koch's discovery and report thereon."

The Annual Report for 1890 noted: "The investigation with its anxious supervision and hourly observations, has entailed much labour on the whole executive and involved a considerable outlay." Its outcome is unfortunately not recorded.

Meanwhile the courses run at the hospital were proving successful. In 1893, the **Earl of Chesterfield** established a prize of a gold medal presented to the person attending the lectures who showed the most promise. The following year **Morgan Dockrell** was appointed Chesterfield lecturer. In 1901 there were 194 entries for the 26 lectures offered, with an average attendance of 40 at each. Dockrell declared the London School of Dermatology established on March 1 of that year but it was not



formally inaugurated until more than 20 years later.

Other institutions were becoming restive at St John's success. The President of the Royal College of Physicians challenged Dockrell to explain why specimen sections taken from patients were not sent to the "recognised institutions" so the clinical diagnosis could be confirmed.

Dockrell replied that "the pathologist attached to the ordinary hospital was incapable of diagnosing different skin diseases as they presented themselves under the microscope."

He added that dermatologists from the large hospitals were coming to St John's to learn how to answer the questions from their students who had trained there. It was a rap on the knuckles for the medical establishment.

Dockrell died in 1920 having been on the staff of St John's for 32 years and Chesterfield lecturer for 25. Three years later, in 1923, the London School of Dermatology was formed. But it was still controversial and some invited to join, declined.

**Wilfred Fox**, one of the eventual founders,



Sir Malcolm Morris



James Herbert Stowers



Sir Ernest Graham Little



John Macleod

described how **Sir Malcolm Morris**, another of its backers, approached him to support the venture.

"He cornered me one day and asked if I would go on the staff of St John's. At that time the hospital had not a very good name and I hesitated but he reassured me and said they wanted me on the staff to make it respectable."

Others too declined the invitation to join, including **Hugh Barber** and **Archibald Gray**. But thanks to the perseverance of a few stalwart supporters led by **James Stowers** who instigated the school, it flourished. From 1923 the reputation

of both hospital and school steadily improved.

Tribute was paid to Stowers' role in boosting the standing of St John's in his obituary in 1931.

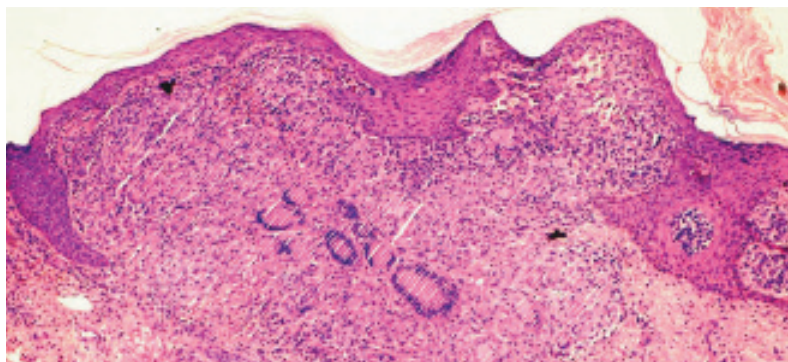
**Graham Little** described his personal debt to the man who had brought the hospital and school firmly into the mainstream.

"Thirty years ago when I was beginning my dermatological life, St John's was under a cloud and I was personally and strenuously warned by my seniors that to accept an appointment at St John's was to court ostracism. To overcome the deeply ingrained prejudices and unite...members of all the teaching hospitals in London was an effort which few persons could have undertaken with success. It is a lasting monument to the affection which Stowers, with his modest kindness, inspired that he was able, by his personal influence, to reconcile discordances and to bring so many conflicting views into harmony and united action."

It still had far to go. In 1925, **John MacLeod** was appointed to the staff, who successfully organised the Department of Pathology, set up laboratories and put skin pathology firmly on the medical map. It has been said that without him St John's would have remained little more than a dispensary.



Patient treated with Koch's fluid for Lupus Vulgaris



Lupus Vulgaris – the commonest skin infection associated with tuberculosis



Honours Board at Lisle Street

## 5 Lisle Street

After 70 years on Leicester square, in 1935 the hospital moved a few yards north to No 5 Lisle Street, a grand renaissance style building with a distinctive stepped gable which is now a listed building.

Little more than a decade later, St John's admittance into the medical mainstream was finally confirmed on the inauguration of the National Health Service in 1948, when it was designated as one of 14 Postgraduate Teaching Hospitals.

It quickly outgrew its new premises, expanding into the building behind at 26-28 Gerrard Street in 1950, and taking over the neighbouring building No 30, a former nightclub, in 1962. It also rented premises opposite.

Its library, run by **Hildegard Freyhan**, was renowned. She compiled a list of all the books, and

scanned the medical literature, providing a digest once a month in *The Bulletin*. It proved an invaluable aid for busy clinicians who needed to keep up with the latest developments in the specialty.

St John's also acquired renown amongst a different clientele – the prostitutes who frequented Lisle Street and were often driven off the streets by police. It is reputed that the Lisle Street porters who held the post from the 1950s gave them sanctuary and unofficially provided treatments.

While there was much activity at Lisle Street, the in-patient wards were not so centrally located. Beds had been provided in Chelsea, in Finchley and in a converted private house at 238 (later 262) Uxbridge Road. Between 28 and 50 patients were accommodated there from 1895 until it was damaged by bombing in September 1940.

There were no in-patient beds for the remainder of the war. In 1952, 16 were provided in Hackney, in a disused section of the Eastern Fever Hospital, Homerton. Their numbers progressively increased in subsequent years to 69 in 1960. New research laboratories were set up and the department of photobiology established under Professor **Ian Magnus**. But the location, eight miles from Leicester Square, was far from ideal.

## St John's in the NHS

**In 1946 the Institute of Dermatology led by Sir Archibald Gray took over the London School of Dermatology which 26 years earlier the then plain Dr Gray had declined to join**

In 1951, three years after the foundation of the NHS, **Geoffrey Dowling** replaced Sir Archibald as part

time director of the Institute and, with the help of the Dean, **J E M Wigley**, steered St John's through its formative years as an NHS teaching institution.

Dowling was 60 but that did not dampen his enthusiasm, and he became a key influence on young dermatologists whose confidence he boosted. An obituary in the South African Medical Journal (he was born in Cape Town and died in 1976) declared: "His greatest work was culling and welding together a large circle of dermatologists linked by respect, loyalty and devotion to their chosen field."

He was a charismatic and popular figure. The obituary noted: "He passed on more ideas than he worked on himself and let others take the credit." His name is commemorated in the Dowling Club and Dowling Day Centre. His main research interest was *sclerodoma* and related conditions and he jointly discovered the curative value of high dose Vitamin D in *lupus vulgaris*.

Academically, however, he was eclipsed by his student, **Charles Calnan**, who in 1961 was appointed the first Professor of Dermatology in London. The University of London established its first chair in



Etain Cronin, consultant in the Contact Clinic (left) with Hywel Williams (later Professor – in white shirt, front row), Lisle Street in the late 1980s

dermatology at St John's in recognition of its status as a component Institute of the Postgraduate Medical Federation.

Calnan never became a full time academic, and continued his clinical work. His specialist interest was *contact dermatitis* and he established the Department of Industrial Dermatoses (originally called the "Contact Clinic").

He began keeping photographic records of all skin conditions, built up a world class skin allergy testing unit and established St John's as an internationally recognised centre of clinical and research excellence.

Among his appointments was that of **John Turk**, who pinpointed the role of lymphocytes in the regional lymph nodes in the development of *cutaneous contact sensitisation*, and **Ian Magnus**, who with colleagues defined the inborn error of metabolism in *erythropoietic protoporphyria* and pioneered the development of the monochromator (see Chapter 3).

Links were established with US institutions and members of the institute travelled across the Atlantic for training in new technologies while foreign specialists came to St John's.

Calnan also built up the teaching at St John's, including the establishment of informal Saturday morning clinics where "hot" cases – patients whose symptoms had erupted and might disappear in a few days – were discussed. These were usually hosted by a senior registrar and the clinics proved to be a popular and effective teaching method.

Calnan retired in 1975. His successor, Professor **Malcom Greaves**, extended and developed the research facilities at St John's, winning major programme grants from the Medical Research



Geoffrey Dowling



Charles Calnan



Ian Magnus



Malcolm Greaves

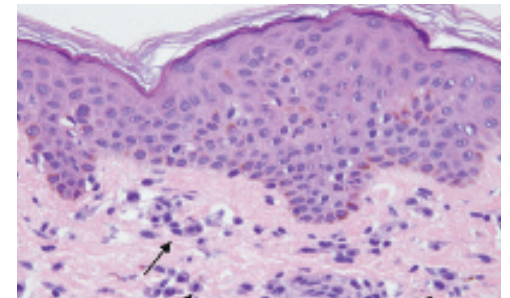
First edition (1975)  
edited by Charles Calnan

Council and the Wellcome Trust to build new laboratories at Homerton. They included a mass spectrometry unit for research into the molecular mechanisms of inflammation, Greaves' special interest, which later yielded a breakthrough in understanding *chronic urticaria* (see Chapter 6).

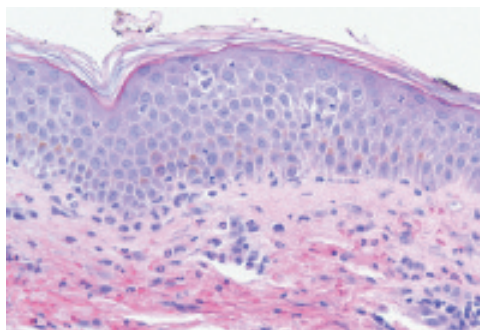
### *Guy's and St Thomas'*

In the years after the war, St John's consisted of two administratively distinct but closely associated components. They were the St John's Hospital for Diseases of the Skin, with its own board of governors

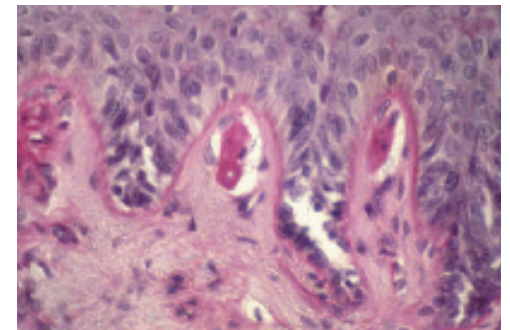
answerable directly to the Minister of Health, and the Institute of Dermatology, financed via the British



Urticaria



Irritant contact dermatitis



Protoporphyria









HRH The Princess Royal opening the Institute of Dermatology

Postgraduate Medical Federation by the University of London.

Following Lord Flowers report in the early 1980s which advised the Government to amalgamate smaller postgraduate institutes and their associated hospitals, St John's gradually relocated to St Thomas' Hospital in the late 1980s. In-patient wards and some laboratories at Homerton moved first in 1987, followed by the out-patient facilities at Lisle Street, which closed. By 1990, St John's Institute of Dermatology – renamed to include both the hospital and the institute – was back on a single site for the first time in more than 50 years.

In 1993, St Thomas' merged with Guy's Hospital to form a single NHS trust. By 2005, some departments of St John's had moved from St Thomas' to Guy's, and the rest are due to follow by 2015.

### *Education and Research*

Today, St John's has close research links with King's College London. It runs monthly training courses for post-graduates and the St John's Society holds

regular meetings for consultants to discuss clinical challenges and new developments with doctors in training. It also runs a wide range of popular courses for GPs and other health professionals.

The focus of education is increasingly international. The MSc course in clinical dermatology attracts many doctors and healthcare workers from countries where there is little or no local expertise. The MSc programme in Diagnostic Dermatopathology is the first postgraduate programme of its kind in the UK and in Europe. St John's runs the UK's largest skin pathology centre.

Many of its senior staff have joint appointments at both the university and the trust. This is seen as one of its particular strengths – straddling the academic and clinical communities – providing a unique



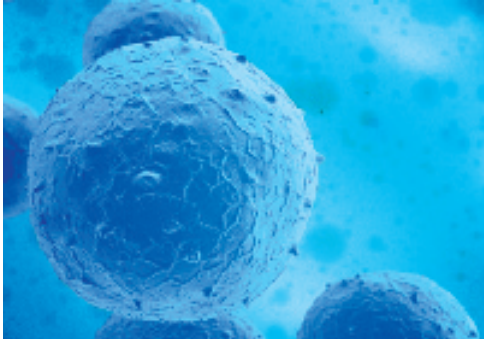
environment in which researchers and clinicians can collaborate to pursue patient-based research.

**Jonathan Barker**, professor of Clinical Dermatology at St John's put it succinctly: "It is very unusual – and it works."



St John's runs training courses for post-graduates from the UK and overseas

## The Future



Today, dermatology operates in a more complex medical landscape

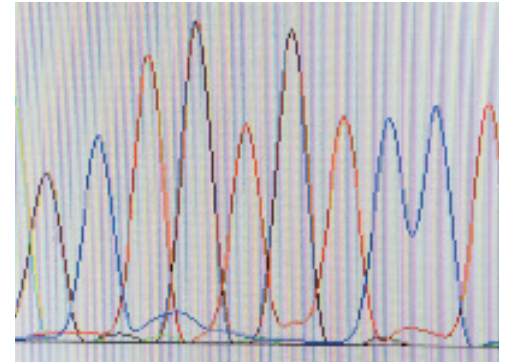
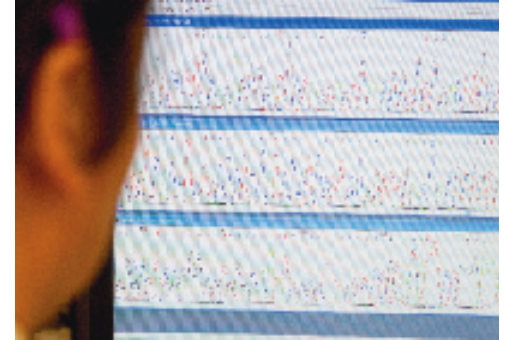
**Through its merger with Guy's and St Thomas' NHS Foundation Trust, St John's has entered a new era – the era of multidisciplinary medicine. For 150 years it has served as a focal point for the development of treatments for patients with very challenging skin conditions drawn from around the world. By attracting a critical mass of specialists with expertise in the field, it provided a unique environment in which doctors with ideas and expertise could flourish and innovate to improve the clinical specialty of dermatology and the care of patients.**

Today, as part of a large NHS Trust, St John's has had to redefine itself. It continues to be a focal point for the development of dermatology but in a more complex, sophisticated medical landscape. No specialty can grow in isolation. The merger with Guy's and St Thomas' provided the opportunity for integration with other closely related specialties including rheumatology (*Lupus, connective tissue disease*), other cancer specialties, allergy services and clinical genetics.

Professor **Sean Whittaker** said: "Patients do not any longer have diseases defined by the organ affected. They have complex conditions with multiple causes that require expertise from multiple specialties. Patients with chronic inflammatory skin disease will now be managed in close conjunction with patients with chronic inflammatory diseases of the joints and connective tissue. They have the same mechanisms of disease and are treated with the same drugs. Patients with eczema will be managed alongside those with food allergies. The days when diseases were managed in silos, based on 'ologies', are over."

The modern treatment of skin cancer involves input from physicians, plastic surgeons and haematologists. Childhood skin disease requires input from general paediatricians, paediatric allergists and clinical geneticists. Developments in stratified personalised medicine will require inputs from genetics, immunology and therapeutics.

Professor Whittaker said: "Throughout its history, St John's has provided a focal point to bring other dermatologists together. Now, in addition, it is providing a focal point to bring other specialties together. Its integration into England's flagship NHS Foundation Trust, Guy's and St Thomas', has put it right at the forefront of modern, multidisciplinary medical care."



By attracting a critical mass of specialists, St John's provides a unique environment in which doctors can innovate to improve care



Genetic Analysis has shown that 60 per cent of melanomas have a BRAF mutation and 20 per cent a NRAS mutation. See Chapter 5 on Cutaneous Oncology

