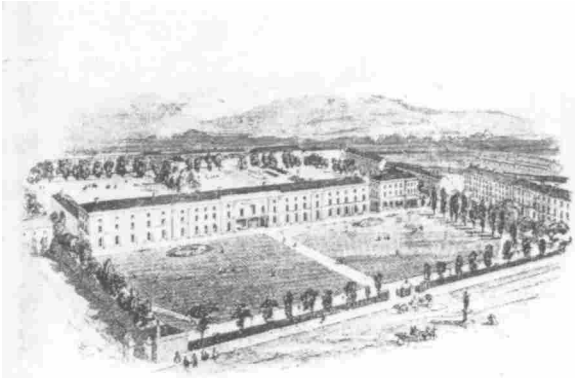
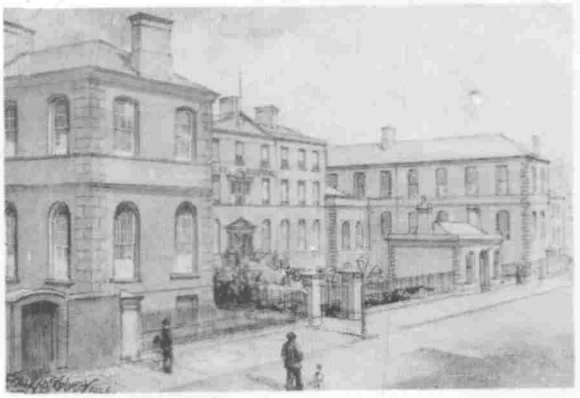
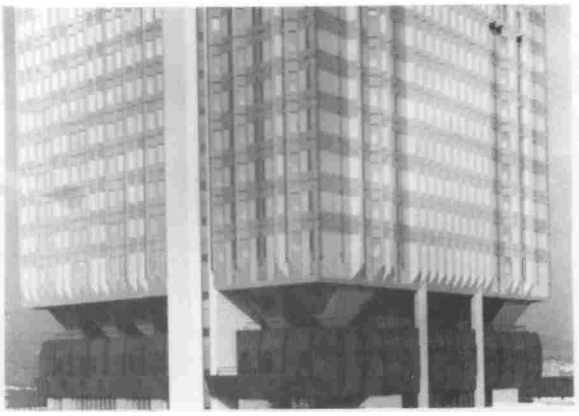




Belfast Medical School



R.B.A.I. about 1835	Frederick St. Hospital
The Queen's University of Belfast	
Royal Victoria Hospital 1950's	
Mater Infirmorum	Belfast City Hospital opened 1985

THE BELFAST MEDICAL SCHOOL

1835 - 1985

by

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Introduction

On 8 October 1835, 150 years ago, the "Board of the Faculty of the Medical Department" of The Royal Belfast Academical Institution held its inaugural meeting. This was the first faculty board meeting of the first medical school in Ireland outside Dublin. Five "professors" constituted the board: J.L. Drummond MD (anatomy and physiology, and botany) — faculty board "president" (i.e. dean); Thomas Andrews MD (chemistry); J.D. Marshall MD (materia medica and pharmacy) — honorary secretary; Robert Little MD (midwifery and diseases of women and children) — honorary treasurer; and John McDonnell MD (surgery). They had much in common; all were Ulstermen who came from a commercial (Andrews, Marshall), professional (Drummond, McDonnell) or farming background (Little), and they shared a hope that the persistence which had sustained the medical school idea through several false starts during the past two decades had been worthwhile and that a virile child had now been born which would grow to robust manhood. The members of to-day's faculty of medicine at Queen's are the professional descendants of that board.

The board stamped on the school from its beginning certain distinctive features which reflected the structure and ethos of the broader Ulster society which spawned and succoured it, and these can be traced to the present day. It is appropriate to recount, on the faculty's sesquicentenary (1985) and the centenary of the Belfast Medical Students Association (1986) (though this latter wil be marked by a separate account of the history of BMSA by one of us (JBB)), the story of the school's foundation and development and to identify its distinctive features.

Prologue

Ireland has six medical schools; that of Queen's is the only one in Northern Ireland and the historic province of Ulster. Yearly MB graduations (150) rank it largest in Ireland and sixth largest in the United Kingdom. Like its English counterparts the Belfast school originated in the favourable circumstances of the 1820s and 1830s, but whereas most of them developed as private schools related to hospitals and run by hospital staff, the first Belfast school was part of a self-governing, multidisciplinary "academical institution", part school and part college, controlled by private, mainly non-medical, proprietors, incorporated under Act of Parliament, (1810) and not under undue influence of a voluntary hospital — unlike England, town council — unlike Edinburgh, or corporate medical body — unlike Glasgow. It therefore fitted neither the English nor Scottish pattern; indeed, in its search for a relationship (with a general voluntary hospital) to run a comprehensive pre-clinical and clinical curriculum, it encountered many of the problems which later were to face the British schools. In 1849, having in 14 years awarded its certificate to some 600 students, the school was absorbed into the newly founded Queen's College, Belfast, one of the three (with Cork and Galway) constituent colleges of the Queen's University in Ireland and which became a separate university in 1908 as The Queen's University of Belfast. The original "academical institution" — now The Royal Belfast Academical Institution — still stands in the centre of Belfast, a grammar school for 1000 boys.

The term "medical school" cannot be exactly defined: we use it here to mean a faculty of a licensing body which organised clinical *and* pre-clinical teaching to an approved curriculum, *or* a medical department of an academical establishment whose certificate was accepted by licensing bodies as qualification to sit their final examinations. All such schools had an arrangement with one or more voluntary hospitals to supply facilities and teachers for the clinical syllabus. This definition excludes most of the "nineteen more or less complete schools of medicine which were functioning in Dublin between 1800 and 1860" (T.P.C. Kirkpatrick) and leaves Trinity College, the Royal College of Surgeons in Ireland, the Catholic University Medical School (later University College Dublin medical school), and the school of Apothecaries' Hall.

We refer in the text to "the school" or "the medical school". There were in fact three consecutive Belfast medical schools: chronologically these were — the school of The Royal Belfast Academical Institution and the Belfast Fever Hospital and General Dispensary (1835-1849), the school of Queen's College, Belfast with its "approved" hospitals mainly the General Hospital and its successors (1849-1908), and the school of Queen's University, Belfast with its recognised teaching hospitals (1908 to the present day). Each was the sole heir to the previous one and no two overlapped. Similarly, the Royal Victoria Hospital and its predecessors are referred to simply as "the hospital". The chronology and full names are — The Belfast Fever Hospital and General Dispensary, located in Factory Row (1797-1799, though the Dispensary had opened in 1792), West Street (1799-1817), and Frederick Street (from 1817). In 1847 it became the Belfast General Hospital which was managed separately from the associated but short-lived (1846-1851) Belfast General Dispensary. In 1875 it was re-named the Belfast Royal Hospital and in 1899 the Royal Victoria Hospital. In 1903 it moved from Frederick Street to its present (Grosvenor Road) site.

These were joint "college/hospital" schools. Each partner needed the other. By concentrating on the former we do not imply a disregard for the latter, merely that the former is the hub since it enrolled the students, employed most of the staff, organised the examinations, awarded the degrees or certificates, and was the partner recognised by the licensing bodies. Correctives of any partisanship may be found in the the writings of Sydney Allison, Rory Casement, David Craig, Sir Ian Fraser, Greer Macafee, Bertie Marshall and Bill Strain, among others, and in the scholarly objectiveness of Hugh Calwell, Dickie Hunter and Samuel Simms.

The First Period: 1835-1849

Foundation

The Belfast medical school was founded after those of Trinity College, Dublin (1711) and the Royal College of Surgeons in Ireland (1784) but earlier than those of the school of Apothecaries' Hall (1837), of Cork (1849), Galway (1849), and what is now University College, Dublin, but then the Catholic University Medical School, in Cecilia Street (1855). There are two reasons for this priority: the rapid industrialisation and accompanying dynamic growth of Belfast — 13,000 in 1782 became some 50,000 in 1831 and some 100,000 in 1851; and the religion of the overwhelming majority of the citizens, *viz.* Presbyterianism. Presbyterians dominated commercial life — only four of the 60 or so founder members of the Belfast Chamber of Commerce (1784) were of other persuasions — and outside Belfast they included rural tenants, agrarian suppliers, general tradesmen, small independent farmers, and an influential and literate smattering of professional men mostly doctors, notaries and clergy.

These ambitious, increasingly affluent, and upwardly mobile men wished their sons to "improve" themselves beyond field and counting-house but were denied many avenues of advancement and patronage: medicine, the law, and the church were the "professional" exceptions. Importantly, their access to college education was severely limited. Maynooth was for professing Roman Catholics. Trinity College, Dublin, disadvantaged them. The Royal College of Surgeons in Ireland (hereinafter RCSI) did not but Dublin was culturally and geographically remote, expensive, and considered by northern Presbyterians to be morally dangerous. Most therefore chose Glasgow or Edinburgh who welcomed them — no closer, cheaper, or morally safer than Dublin but peopled by co-religionists which apparently made extortion, temptation, and vice more acceptable! Ulster sorely needed a local university without religious test. Primate Robinson (Baron Rokeby) planned one for Armagh and left some handsome buildings (which still stand) and £5,000 in his will in 1796 to endow it, the offer to lapse if not acted on within five years. Government's initial interest in the scheme vanished with the endowment in the smoke of the '98. Presbyterians responded to the need by building a non-denominational "academical institution" in Belfast (now The Royal Belfast Academical Institution, hereinafter Inst) which was incorporated by Act of Parliament of 1810. This was not the first such initiative in Belfast by Presbyterians — Belfast Academy (now Belfast Royal Academy) pre-dated it — but it was the most ambitious and, most important for success, alone received the *imprimatur* of the General (Presbyterian) Synod for education of prospective Presbyterian ordinands. Inst was to be part boys school ("the primary department"), part a composite further education college and university college ("the college department"): like a Scottish university in embryo with an extra-mural department and a school tacked on it reflected the Presbyterians' high regard for education

especially if on the Scottish pattern! The faculty of arts awarded a general certificate to candidates for the ministry and ran classes, for part-time and occasional students, of "popular lectures upon those subjects which are most conducive to the improvement of the Agriculture, Arts, and Manufactures of this country". The proprietors also planned a faculty of medicine whose certificate (they hoped) would be recognised by the main licensing bodies as a ticket of acceptance to sit their final examinations. Looking further ahead they hoped that a university charter would follow which would enable Inst to award its own degrees. Their hopes were to be dashed; Inst never became more than a preparatory college, i.e. "preparing" students to sit for degrees or diplomas elsewhere. Despite pressures Inst clung to its founders' principles and remained staunchly non-denominational: Thomas O'Hagan, first Catholic Lord Chancellor of Ireland, was schooled there; John Gavan Duffy attended "improving" lectures; and Bishop Crolly, (Catholic) Bishop of Down and Connor, was a proprietor and subscribed over £100 to the foundation fund. Many Anglicans also subscribed and enrolled but most of the students and proprietors, and Inst's ethos, were Presbyterian, *viz.* secular education taken in common; religious instruction taken separately; self-improvement, self-control, and application, the cardinal virtues; and overall an evangelical assumption that attaining wealth in this world and salvation in the next were not mutually exclusive but the twin rewards of virtue! The uncompromising slogan (on prize medals) was "work is everything"; the motto was, and still is, "seek the truth". Dr William Drennan, the veteran United Irishman, gave the opening address (on 1st February 1814) which emphasised that the educational and vocational intentions of the founders were inspired by self-improvement — "It is intended to diffuse as widely as possible throughout the province and population of Ulster the benefits of Education both useful and liberal", and also the high premium placed on locally-based education — "The Academical Institution will prevent the hard and disgraceful necessity ... of [parents] sending their children to seek in other countries, with much risk to their health and morals, for that instruction . . . which might be equally well attained at home with evident advantage to the public interest as well as to that of individuals". Medicine was to start at once. Plans for a "four apartment" anatomy suite (dissecting room, lecture room, museum, and spare room) were drawn up and two pre-clinical chairs were to be created — botany, and anatomy with medical physiology. Clinical chairs would follow as soon as resources and arrangements with the then Fever Hospital and General Dispensary allowed. But at once disaster struck: three Inst staff and five members of the joint board (of managers and visitors) were reported drinking seditious toasts at a St. Patrick's Day banquet in Gillet's tavern in 1816 ("to Marshall Ney" and "to an early reform of the franchise" are examples). Inst moved quickly to preserve government favour. Three of the joint board members resigned and the other two were called on to do so; the three masters (Knowles *père et fils* and Thomas Spence) were admonished, and a letter of disavowal was rushed to government. Government was unpersuaded and sought assurances on future behaviour and greater

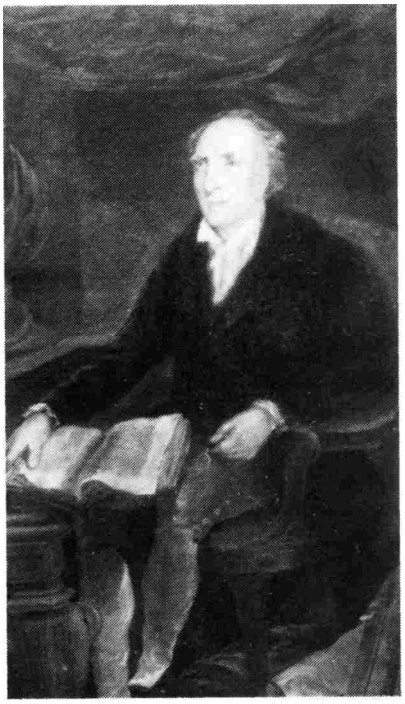


Figure 1 James McDonnell, MD (1763-1845). Reproduced from a portrait by kind permission of Mrs Shorter, Kilsharvan, Co. Meath.

proprietorial control to enforce them. Inst failed to deliver (they didn't try very hard!) and in 1817 government withdrew its grant of £1,500 p.a. Plans for a medical faculty had now to be shelved, but an unsung hero, James Lawson Drummon MD, took the ill-paid (£50 p.a.) chair of anatomy and medical physiology in 1819 (in the faculty of arts), and also that of botany in the same faculty, teaching arts and theology students who read on a broad syllabus, but also to keep the pre-clinical nucleus of a future medical school alive.

At the Belfast Fever Hospital, reopened in 1817 in Frederick Street with over one hundred beds, things were brighter. The hospital itself was a legacy of a remarkable group of men — principally James McDonnell MD, "the father of Belfast medicine" *(Figure 1)*. McDonnell bestrode contemporary Belfast: an undoubted polymath he was a member of a cadet branch of the McDonnells of the Glens, the hereditary earls of Antrim. His wide learning associated him with many cultural as well as medical, scientific and philanthropic initiatives. He was known throughout Ireland and beyond, and his son, John McDonnell, was to be the first professor of surgery at Inst. Many hospital staff including McDonnell, were Inst proprietors and the hospital supported the newly-founded Inst; but the staff were first and foremost loyal to the hospital and because of Inst's problems they discussed forming a hospital clinical school on the English pattern, independent of Inst and in which students would "walk the wards" and receive clinical lectures (by the hospital staff) in return for fees. This would give the hospital the professional status it coveted as commensurate with its growing importance, and supply the staff with welcome clerks and dressers and an even more welcome opportunity for patronage! They argued that Inst or some other private enterprise could teach the pre-clinical subjects without any formal link with the hospital — as indeed was the practice in many centres with their "Anatomy Schools", such as the Park Street School in Dublin whose extensive museum of specimens (some 1600 anatomical and 1700 pathological ones) was in fact bought for £50 to provide the first material for the Queen's College Belfast medical school in 1849. The staff's autonomy and freedom of action would then be ensured and their oligarchy remain unweakened. This was a narrower concept of a medical school than that held by Inst who envisaged a formally constituted

joint pre-clinical and clinical school which would (ultimately) award degrees. All agreed the nobility of Inst's objective but the hospital staff and committee doubted that it could be attained since Inst was chronically hard-up and after the 1816 affair lacked government support and confidence. Furthermore, Inst was talking of actually *advertising* posts: such exemplary openness in competition found no echo from the hospital staff for the good reason that outsiders might get "chairs" and come looking for beds in the hospital and even set up in practice! The protectionist hospital staff wanted it the other way round — to appoint their *own* staff as professors and exclude rivals from outside the oligarchy! Also, they argued, Inst contracts were for five years while hospital appointments were annual, and, further, a connection with Inst would jeopardise the Grand Jury grant (for fever patients) which was the hospital's main income. The message was clear: Inst could join them but only on the hospital's terms. Inst, struggling to survive, showed courage in not trimming to the hospital's wind, and so the hospital went its own way and on 21 December 1821 enrolled its first student (Mr Walter Bingham from Dundonald, who later practised in Downpatrick) to "walk the wards" at one guinea per session fee. Other students soon followed. Inst meanwhile lay becalmed in the doldrums without the wind of government help (the stipendary secretary's salary was halved and professors were requested to forego their stipends!), and the hospital had no option but to go further alone and on 3 June 1826 James McDonnell gave the first formal hospital clinical lecture (on "Systematic Medicine") to some ten students — mainly apprentices of the staff — in what became an identifiable if limited and irregular series.

Neither Inst nor the hospital saw this as a final or satisfactory outcome. Negotiations continued intermittently, waxing and waning with Inst's fortunes, and the next ten years saw intricate manoeuvring between the parties though common purpose ensured that the joint school idea survived. Compromises were made, mostly in fact by the hospital, but the basic principles were not sacrificed: preserved to Inst were open advertisement and selection of professors and control of student enrolments and examinations, while the disruptive question of hospital beds for "professors" was shelved to be later solved pragmatically for a century though to reappear as a source of controversy in recent memory! Preserved to the hospital was very little other than some "understandings" and assurances on student supply as dressers and clerks through apprenticeships, clinical lectureships *de facto* for hospital staff, and general supervisiory provisions in the medical school "Plan". With harmony (and the government grant) restored, Inst by the early 1830s was raising money for medical buildings, drafting a set of regulations (the medical school "Plan") within the requirements of the Apothecaries Act (1815), and in 1835 — 21 years after Inst opened and 150 years ago — the faculty of medicine opened with a four-room pre-clinical block behind the new north wing *(Figures 2 and 3)* with an adjoining botanical garden, five of the ambitiously planned 13 professors in post (see Introduction) with Drummond as dean, Marshall as

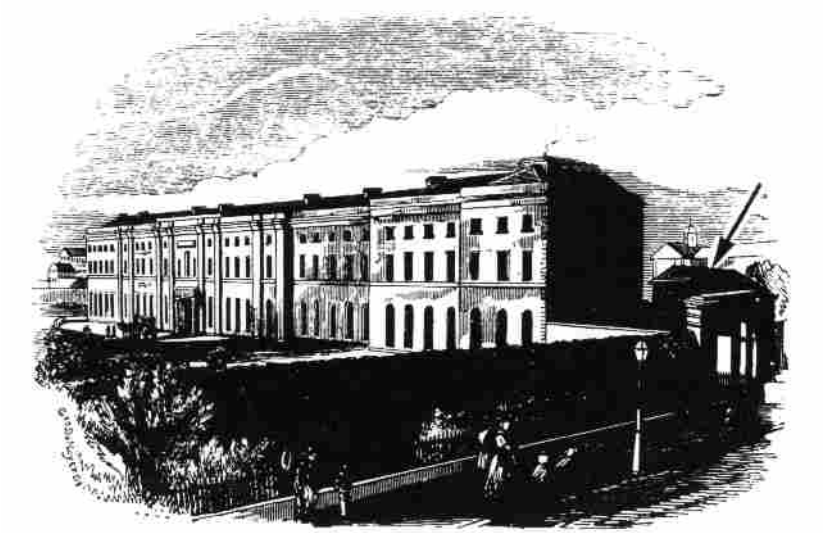


Figure 2 The Royal Belfast Academical Institution with the three-roomed medical school (arrowed) of lecture theatre, dissecting room and museum. From a print of about 1840 and reproduced in; J.H. Smith, **Belfast and its environs with a tour of the Giant's Causeway**, *Dublin, William Curry, 1842.*

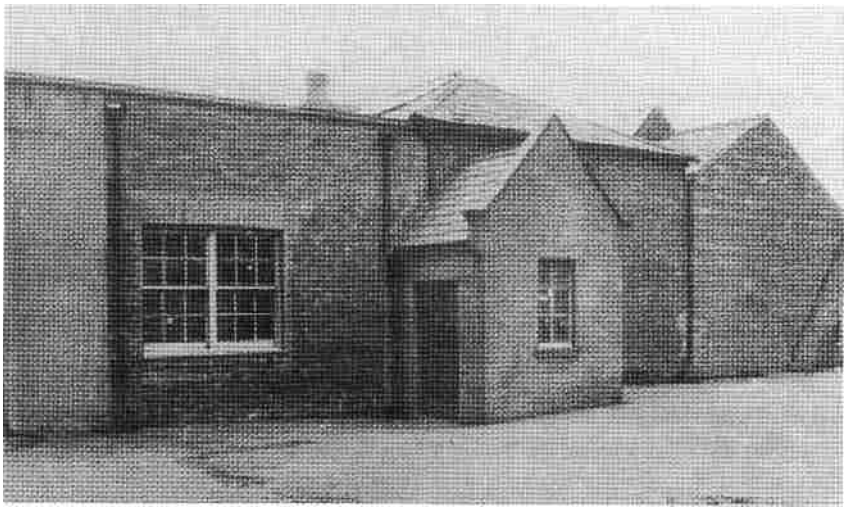


Figure 3 The medical school of The Royal Belfast Academical Institution, now demolished. The centre block, without the porch, was the original "medical school". **(Reproduced by courtesy of the Board of Governors).**

secretary, and Little as treasurer, with a comprehensive set of regulations and a syllabus, most problems with the hospital resolved, a rudimentary library, and advertisements for students placed in the press. No wonder after the travails and disappointments of the last two decades had been overcome that optimism was the prevailing mood.

The board held its first meeting on 8 October 1835. It was unique: devised by high-minded, committed, and liberal men it was the most

"modern" of the dozen or so provincial schools in the Kingdom; a joint (clinical and pre-clinical) school it was free from undue hospital staff influence — unlike provincial schools in England, free from the town council — unlike Edinburgh, and free also from the powerful pressures of professional bodies — unlike Glasgow, or their control — unlike RCSI. It was a partnership, though an uneven one, between an incorporated autonomous multi-technic college and a voluntary hospital — a structural prototype in fact (barring some constitutional niceties!) of the modern medical school.

Figure 4 The press advertisement for the second session of the medical school (1836-37).

ROYAL BELFAST INSTITUTION.

INCORPORATED BY ACT OF PARLIAMENT.

MEDICAL DEPARTMENT.

SECOND SESSION.

The following Classes will be opened during the ensuing Winter :—

ANATOMY AND PHYSIOLOGY, ... *James L. Drummond, M. D.*
27th October, 1836, *daily*, £3 3*s*.

DEMONSTRATIONS AND DISSECTIONS, ... *James L. Drummond, M. D.*
27th October, 1836, *daily*, £4 4*s*.

Anatomy and Physiology, Demonstrations and Dissections, taken together, £6 6*s*.

CHEMISTRY, ... *Thomas Andrews, M. D.*
2d Nov. three days in the week, £2 2*s*.

MIDWIFERY, ... *Robert Little, M. D.*
2d Nov. four days in the week, £2 2*s*.

PRACTICAL MIDWIFERY, ... *Robert Little, M. D.*
2d Nov. £2 2*s*.

Each student is allowed to attend at least thirty cases connected with the Lying-in Charity.

MATERIA MEDICA AND PHARMACY, ... *James D. Marshall, M. D.*
2d Nov. three days in the week, £2 2*s*.

SURGERY, ... *Thomas Ferrar, M. D.*
2d Nov. five days in the week, £2 2*s*.

THEORY OF PHYSIC, ...
2d Nov. three days in the week, £2 2*s*.

The Lectures will be delivered in conformity with the regulations of the Royal College of Surgeons, London, and attendance on them recognized accordingly; and such arrangements have been made with the Inspector of Anatomy, and under the sanction of Government, as will give Pupils the opportunity of pursuing Practical Anatomy during the ensuing Session; which, together with attendance on the Belfast Hospital, constitutes an *Annus Medicus*.

JAMES L. DRUMMOND,
President of the Medical Faculty.

ROYAL BELFAST INSTITUTION.
September, 1836.

Progress

The school was an immediate success. Most of the licensing bodies approved its course. Enrolments were buoyant and placed it among the larger United Kingdom provincial schools. The curriculum was comprehensive. *(Figure 4)* Success, however, fuelled ambition. This led to a misconceived episode — the purchase by Inst of the "Old Cavalry Barracks" in Barrack Street (on the site later to be a Christian Brothers School) and attempted conversion into a 100-bed "teaching hospital" — formally The Royal Institution Hospital, more generally called the College Hospital. Perhaps Inst overreached itself and sought complete control of the school; perhaps it wanted security against a hospital default or simply wanted more clinical access to patients as student numbers grew; perhaps all three. The General Hospital staff were understanding (some even took beds in the new hospital) and little damage was done to relationships, only to Inst's precarious finances. In the event the College Hospital (which opened in March 1837) was used only during epidemics and was let mainly to commercial and government bodies until disposed of late in the century.

The early 1840s marked the school's zenith, but decline soon followed. Lack of capital prevented expansion. The government grant (restored in 1829) was miserly; the medical building could not be maintained nor further chairs created. Even cadavers fell into short supply. More importantly, the faculty of arts crumbled in 1841, an inevitable casualty of the deep schism in the Ulster Presbyterian church since Inst was the main source of ordinands and was increasingly suspect for "new light" ideas after the appointment of Henry Montgomery (in 1840) as one of the professors of divinity of the secessionist Non-Subscribing Presbyterian Association. The death knell sounded in November 1845 when government decided that the "northern college" of the new Queen's University in Ireland would not be housed at Inst but in a new building to the south of the town — where Queen's still stands. Ironically the tocsin tolled just as events were moving in Inst's favour. In 1847-49 the new 600-bed Fever Hospital was built at the Union Workhouse (later the Belfast City Hospital) which meant that more non-fever patients, i.e. better clinical material, were admitted to the General Hospital. The Dispensary was reconstituted. Andrew Malcolm joined the hospital staff in 1845 and revitalised the clinical teaching just as Graves had done on his return from Edinburgh to the Meath Hospital in Dublin in 1820 — careful case-notes, emphasis on clinical signs and clinical diagnosis, the relating of autopsy findings to clinical disease, emphasis on physical signs over symptoms, and instruction in surgical techniques. Malcolm died in Dublin ten years later aged only 38 but into his short life he crammed several life-times' activities as writer, teacher, clinician, factory health reformer, philanthropic worker, founder of the Belfast Working Classes Association, editor of the Belfast People's Magazine, secretary of the Belfast Amelioration Society, and much more besides. Unfortunately it was too late for Inst; it was Queen's College, Belfast (QCB) which reaped the benefit.

This pioneer work gave QCB a flying start. In 1849 the Inst students transferred without loss of credit (provided they matriculated) and three of the medical professors joined them (William Burden — obstetrics; Alexander Gordon — surgery; John Frederick Hodges — professor of chemistry at Inst but appointed professor of agriculture at QCB. The three Queen's Colleges, however, were not designed initially to house medical schools and so Belfast medical students continued to dissect at Inst until 1863 when the anatomy rooms were opened at QCB. Many of the problems which lay ahead for the other Queen's Colleges and the Cecilia Street School in Dublin, had already been identified in Belfast and the school was well placed to exploit its new opportunities.

What lasting influence did this first school have on Ulster medicine? Structurally it showed that a joint school was possible and indeed desirable; medically it had a great deal and it also had an influence beyond Ulster through the reputation of staff and emigrant students. Thomas Andrews (professor of chemistry) was the leading physical chemist of the day: fellow and medallist of the Royal Society he published his first learned article at the precocious age of 15. In later life he refused a knighthood. He had studied medicine under Graves in Dublin and imported Graves's clinical methods to Belfast, later reinforced by Malcolm. James Lawson Drummond (professor of anatomy and medical physiology, and of botany) wrote several well-used texts. Henry MacCormac (professor of medicine) was a man of the widest culture: a prolific if heterodox writer over a catholic range and a translator of note. A fresh air fanatic he broke the windows of his consumptive patients with his cane. His eldest son, Sir William, Bt., was the first Irishman to be president of the Royal College of Surgeons of England (1896-1900). Andrew Malcolm was a brilliant systematist and teacher, an energetic author, and potentially the most astute observer of them all: his article on flax byssinosis (*Journal Royal Statistical Society,* 1856, vol. 19, pp. 170-181) is a classic. John McDonnell (first professor of surgery), James' younger son, resigned his "chair" after three months on being appointed to the Richmond Hospital in Dublin: he is remembered as the first surgeon in Ireland to operate using ether anaesthesia — an amputation of an arm on New Year's day, 1847. Robert Little (first professor of midwifery and diseases of women and children) published energetically in the mid-1830s though with indifferent reviews. Alexander Gordon (professor of surgery from 1847) had works on fractures to his credit and "Gordon's splint" was long in use. The other professors (Burden, Coffey, Mateer and Marshall), and Drummond's assistant (1835-7), James Saunders MD, were worthies of local achievement but wrote little.

They were without exception Irishmen, all except Coffey, Ulstermen. Most were graduates from Scottish schools and retained something of their Scottish loyalties but they also looked to Dublin and its brilliant luminaries as a fountainhead of ideas. They published in the Dublin journals; several studied in Dublin and/or took Dublin licences often in addition to Scottish qualifications; and most coveted the membership of

the Royal Irish Academy. But they were not dead moons merely reflecting light from fiery Dublin and Scottish suns, the latter in any event now dimming. They were a discrete sub-culture building their own school within their own cultural and scientific *milieu* and manifesting their own ethic, character, and standards, and staffed by regional compatriots mainly of an evangelical cast and with students enrolled almost exclusively from the fields and streets of Ulster. They cohered early: the Belfast (now Ulster) Medical Society dates from 1806, one of the original regional medical societies in these islands; and the Belfast Clinical and Pathological Society was nearly as venerable. They were practical, hardworking, independent men, serious-minded and with a high regard for education, mainly of rural background and many of the manse, and with deep pride verging on conceit in their society's success. The skills they developed and prized were practical, even frontier ones — strong in clinical acumen; stronger still in commitment to teaching; but wanting somewhat in experimental skills and with little appetite for discourse. Intellectually they expressed themselves in theology, law, history, science and medicine; seldom in novels, drama or poetry — with the noted exception of William Drennan. The London and Dublin *coteries* with their philosophical and discursive approach, literary pretensions, and metropolitan pursuits, were far from their world. They were no doubt "provincial" but they set a pattern for Ulster medicine for the rest of the century, arguably to the present day.

The Second Period: 1849-1908

Progress

The move from Inst to QCB in 1849 ensured the future of the medical school. Inst's precarious finances and crumbling faculties were now replaced by the assured if modest funding and stable structure of QCB. Government's luke-warm support for independent Inst (despite the "Royal" accolade given in 1831) gave way to its unambiguous backing for QCB, its own creation. Furthermore, the three Queen's Colleges constituted a university: students could sit for the degrees of the Queen's University in Ireland (QUI) instead of hawking their Inst certificate around every licensing body in sight. QCB in fact gave a secure platform for growth. It was timely. Belfast was growing rapidly virtually doubling its population every 20 years to reach no less than 350,000 in 1901, a staggering growth even for a 19th century industrial city. The 55 medical students of 1849 became 327 in 1879: thereafter numbers declined due partly to the unpopularity of the Dublin-based Royal University of Ireland (RUI) — which replaced QUI in 1881 and was merely an examining body — and partly to an increasing exodus of students as steam made travel easier and cheaper and as their parents' prosperity grew.

The student mix of QCB was largely unchanged from that in Inst. Over the century at least 90 per cent were from Ulster, mostly Belfast, Antrim

and Down. Some 65 per cent were Presbyterian; 17 per cent Anglican; 6 per cent Catholic and 12 per cent "others". ("Religious affiliation" was not recorded after 1908 when Queen's University replaced QCB.) The students carried this geographic and cultural homogeneity into their professional lives and this gave a cohesion to the Ulster profession which still exists though with subtleties of emphasis as the religious mix has altered over the years.

Many students transferred to QCB. Three of the seven Inst medical "professors" were taken onto the QCB staff, and with Thomas Andrews already appointed vice-president (in 1845) the Inst medical influence at QCB was strong. But, importantly, the replacement of moribund collegiate Inst by the exciting QCB with university college status and wide attraction to potential staff and students alike, introduced a cosmopolitanism into what had been a parochial system; more precisely introduced it into staff selection for *pre-clinical* subjects (where problems of hospital beds for outside appointees didn't arise) while perpetuating a closed system in the clinical departments. Such openness produced immediate results. Of the seven men who held the (non-clinical) chairs of pathology, anatomy, and physiology in the 60 years of QCB's existence, two were English (Peter Redfern and Johnson Symington), three were Scots (T.H. Milroy, James Smith and William Symmers), one (William Thompson) was from Co. Longford and Queen's College Galway (after nine years he became professor of medicine at Trinity and later went down with the torpedoed *Leinster* on 10 October 1918), and only one (Hugh Carlisle) was an Ulsterman though hardly a typical one having graduated from Trinity College and worked all his life in Dublin. This cosmopolitanism with no professional appointee during the whole century from the Belfast fraternity is in sharp contrast to the hospital's oligarchical hold on the (part-time) clinical professorships. Between 1849 and 1947 — 98 years — only Ulstermen were appointed to clinical chairs (including materia medica) at QCB and QUB and only two of these were from outside the tight circle of the hospital staff, and each was a special case. The first was John Creery Ferguson: he held the foundation chair of medicine though without a hospital appointment for his first four years (1849-1853). Though not of the local fraternity he was an Ulsterman from Armagh and was a rare catch for the fledgling QCB since he was professor of medicine at Trinity and formerly professor at Apothecaries' Hall. The other, Robert Foster Dill, professor of midwifery 1868-1893, was unlike Ferguson a member of the local fraternity but not of its inmost sanctum even though a consulting physician at the General Hospital. A member of an influential Presbyterian Ulster family of wide ramifications and clannish practices, he used the influence of his cousin, Dr John Dill of Brighton, to press his claim to the chair, successfully, as "the only Conservative candidate" in preference to Dr John M. Pirrie (the choice of the profession and the QCB president) who was the leading Belfast obstetrician, a member of the hospital staff and four-square in the centre of the Belfast clique, but of well-known Liberal associations. (Such canvassing, now deprecated or even disqual-

ifying, was then standard practice even by potential professors so perhaps Dill should not be judged too harshly.) At the time professors were appointed by the Queen on the advice of the lord lieutenant — effectively by the chief secretary of Ireland — who relied on a priority list prepared by the college president and vice-president. The QCB presidents combined wisdom with pragmatism and *always* recommended a member of the hospital staff, and this reversal by the lord lieutenant in favour of Dill and against the president's choice (Pirrie) was unique. But Dill had no beds; he had resigned from the Lying-in Hospital some years before after a row. Undaunted he took his students on domiciliary confinements and lectured in his large house at 3 Fisherwick Place. Hospital and college made sure that such mistakes were not repeated!

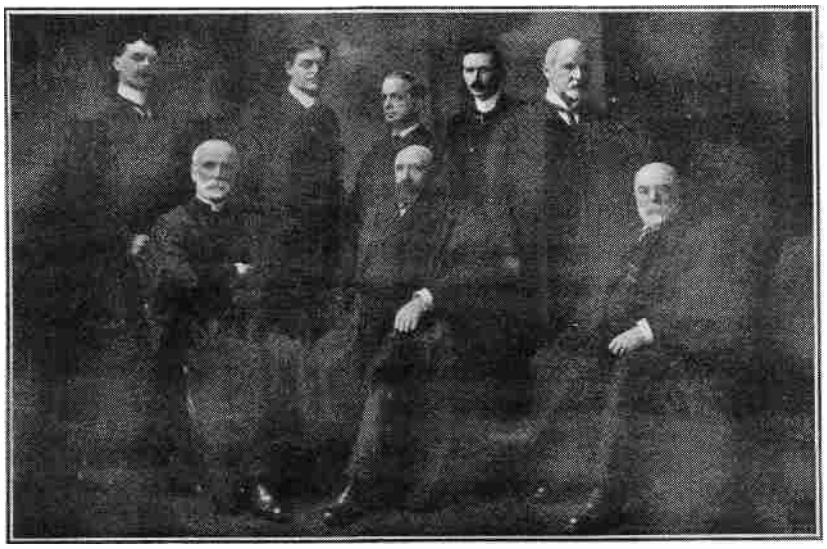
But even Ferguson and Dill were Ulstermen through and through. And Ulsterman meant Ulsterman irrespective of creed. The Catholic Sir Dominic Corrigan found advancement difficult in a Dublin profession dominated by Protestants; the Catholic James Cuming from Armagh found no such difficulty in a Belfast profession also dominated by Protestants. He was physician at the hospital for 34 years, professor of medicine at QCB also for 34 years (he had previously been deputy-professor to Ferguson), twice president of the Ulster Medical Society (1868 and 1881), president of the British Medical Association (BMA) (1884), and chairman of the first regular staff committee of the Belfast Royal Hospital. His religion was no bar to his career; indeed he became unchallenged doyen of the Ulster profession. In Andrews' words "[there are] few medical men to be found anywhere more highly cultivated or better fitted to fill a chair".

This oligarchical control of clinical chairs (which were part-time, the incumbent being in private practice and necessarily on the hospital staff) ensured amicable relationships between QCB, the professors, and the hospital staff greatly to the benefit of the school. But there was a price to pay. The professors though in the main of high clinical skill were inevitably somewhat provincial in outlook and parochial in experience. Opportunities for foreign study were limited though some made the postgraduate "grand tour" including Paris, Vienna, Berlin and London. Few undertook lines of systematic research or became ranking authors. There were exceptions, notably Sir William Whitla *(Figure 5).* Whitla wrote three great books — *Elements of Pharmacy, Materia Medica, and Therapeutics* (first published in 1882), *Dictionary of Medical Treatment* (first published in 1892), and *Manual of Practice and Theory of Medicine* (first published in 1908): the first went through 13 editions up to World War II and the second nine up to 1957 and was translated widely including into Chinese. These books, an extensive practice, and successful investments brought him wealth. Through his beneficence Queen's enjoys to this day the Whitla Hall, the Whitla endowment for therapeutics and pharmacology, the Galileo statue in the Medical Biology Centre, and not least his spacious home which had once belonged to Thomas Andrews (professor of chemistry) and now the Vice-Chancellor's Lodge in Lennoxvale. The

Figure 5 The president and medical professors of Queen's College Belfast (1906).

PROF. SYMMERS PROF. MILROY

PROF. GREGG WILSON PROF. LINDSAY PROF. SYMINGTON



THE PRESIDENT SIR W.M. WHITLA SIR JOHN W. BYERS

profession also benefitted: the Whitla Institute in College Square North, home of the Ulster Medical Society until it moved to the Whitla Building on the Lisburn Road site and opened in May 1976, was his gift. The great stained glass window at the eastern end of the Royal Victoria Hospital corridor was presented by him in 1886 and was placed above the main staircase in Frederick Street.

This parochialism, however, waned with the century. Circulation of journals, travel, and inclination for foreign study and visits increased. Whitla for one was an inveterate traveller, and Thomas Sinclair (professor of surgery, 1886-1923) whose youth was virtually disqualifying (he was 28) was preferred for the chair to Sir John Walton Browne who was many years his senior seemingly because of his several years of study at continental centres and his holding of what was then unusual in Ulster, the Fellowship of the Royal College of Surgeons of England.

Intellectual vigour also came from another source — expatriots returning from often unusual experiences abroad. Joseph Nelson MD, Belfast's leading ophthalmic surgeon in the 1880s and 1890s, abandoned his studies at Queen's in 1860 to join Garibaldi's "Thousand" at Genoa. Commissioned lieutenant in the *Regimento Inglese* he received a sword of

honour from the great man and two medals from King Victor Emmanuel. He graduated in 1863 (at QUI), became for 14 years a tea-planter in India, re-adopted his profession in 1877 by studying ophthalmology in Dublin and Vienna, returned to Belfast in 1880, joined the hospital staff in 1882 and founded the eye, ear and throat department at the Royal Belfast Hospital for Sick Children. He was for ever known as "Garibaldi" Nelson. He was not alone: many *emigres* and new-comers were lured by Belfast's prosperity. They were needed: emigration of young doctors was still heavy and included also a few established staff, e.g. William (later Sir William) MacCormac, Henry's son, who was appointed attending surgeon to the General Hospital in 1865 but made a highly successful career in London after serving in the Franco-Prussian War.

Looking increasingly to London and abroad meant looking less to Dublin; indeed the Belfast profession's gaze was probably only held there at all by the Irish Royal Colleges and the Dublin-sited Royal University of Ireland which examined Queen's College students for its degrees. Social, economic and political changes were now distancing Belfast from the rest of Ireland and the decline of medical Dublin after the mid-century only hastened an inevitable estrangement. The English licences became more in evidence, and publications, once mainly in Irish journals or through Dublin publishers, were increasingly placed elsewhere. And with all this there was a growing self-confidence as the school became the leading one in Ireland, more coherent than those in fragmented and politically embroiled Dublin and far ahead of the Queen's Colleges in Cork and Galway which lacked local support and confidence. In 1850 only the 100 beds in the General Hospital were available to Queen's, but by 1900 the Union Hospital (later Belfast City Hospital), the Mater Infirmorum and the growing number of specialist hospitals for diseases of the eye, ear, skin, children, midwifery, and mental diseases, gave to QCB a supply of clinical beds unequalled elsewhere. In his presidential address to the BMA in 1909 Whitla listed some 1800 beds in general hospitals and nearly 200 in specialist non-mental hospitals in Belfast alone "which were from time to time in late years utilised by the students attending our Medical School".

Booming Belfast was becoming locked into the Union and Ulster was growing increasingly remote from the rest of Ireland. Few Belfast men now went south to practise, if they ever did. Dublin, then the metropolis of a unified country, did attract some northerners on the ladder of government service like the surgeon John (later Sir John) Fagan, chief surgeon at the hospital who quit Belfast in 1897 to become Inspector of Reformatory and Industrial Schools in Ireland but only after an operating blemish when allegedly he amputated a wrong (and healthy) leg! The first practising Ulster surgeon to be president of RCSI was Andrew Fullerton in 1926-28 and again as locum in 1929-30 (when the incumbent died in office), and the first practising Ulster physician to be president of RCPI was Dr Alan Grant in 1979. The entire nineteenth century saw no Ulster-based Irish College presidents but the fraternity in Belfast after about 1860 probably cared little about that. They were by now their own men and Dublin no

longer their unarguable metropolis. This British orientation is underscored by the BM A electing James Cuming (1884) and Sir William Whitla (1909) as presidents during this period when the annual meeting was held in Belfast.

The Buildings

When Queen's College, Belfast, opened in 1849 the 55 medical students (of a college total of 195) were taught in a lecture theatre and a small preparation room in the north wing of the main building and in a substantial anatomical and pathological museum on the first floor of the north frontage where the new academic council chamber is housed. There was no dissecting room until 1863 and so practical anatomy remained in Inst's dissecting room, now leased by QCB at £25 p.a., and there was much grumbling as the students walked the mile and a half from Inst to Queen's between classes.

A decade later the 55 students had become 81 (of a total of 193) and the problem of space was acute. This ended after ten years of haggling when in 1863 the first part of the new two-storey medical building was opened. It contained a lecture theatre, associated service areas, and above all a dissecting room which ended forever reliance on Inst's facilities. It stood in isolation (dissecting was an offensive business) on part of the site of the present Administration block. But it had been cheese-pared and proved inadequate so in 1866 it was extended by an ornate, three-storeyed (with basement) addition to include an extensive medical and pathology museum, the whole described by the QCB president (Rev. Pooley Shuldham Henry) as "amongst the best in the Kingdom for spaciousness, ventilation, and adaptation to the purpose to which they are devoted" *(Figure 6).*

The medical student muscle quickly flexed. The Belfast Medical Students Association was formed in 1886: it has outlived the then dominant Literific and this year celebrates its centenary. It pressed, successfully, for better QCB representation on the board of examiners of the RUI. In 1890 it sought admission of students to the Belfast Union Infirmary (BCH) for clinical instruction and was again successful. It found a willing ear in President Hamilton when it pressed for student recreational facilities; and it was active in the great Fair in 1894 which had 23 stalls in Queen's and a bonanza of military bands, hot air balloons and fireworks in the Botanic Gardens, and which was so successful in augmenting existing appeal funds that the Students' Union (now the department of music) could be planned and built (1896).

Accommodation, as invariably happens, failed to keep pace with need and the last 15 years of QCB saw its most active building period. New buildings lined the complete north side of the quadrangle to Botanic Avenue. That part now occupied by the Social Sciences block then housed

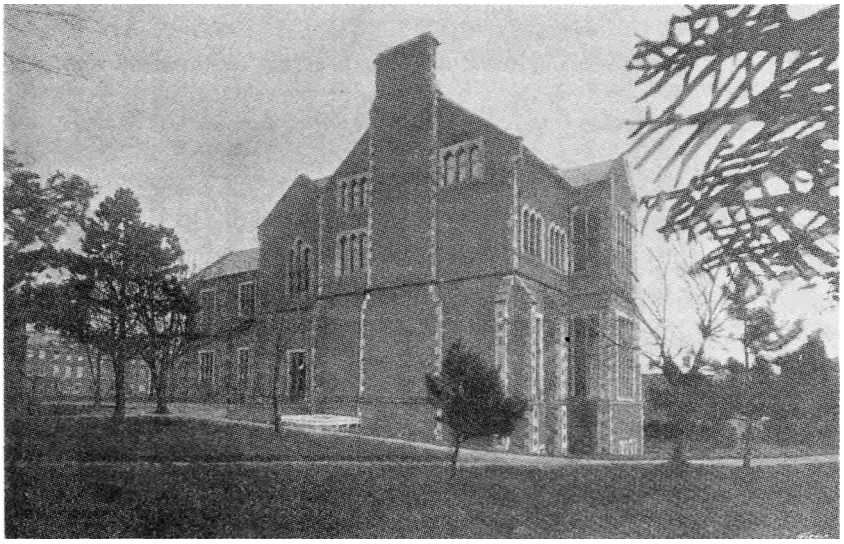


Figure 6 The medical building at QCB opened in 1863 and extended in 1866. It stood in isolation on the site now occupied by the Administration block.

chemistry (opened 1894 and 1907), physiology and pathology (the Musgrave laboratories, 1897), and physiology (the Jaffe laboratories, 1907), while the medical building was extended with a surgery lecture theatre (1907) and was to be further enlarged by facilities for medicine in 1911 — strictly outside this period but part of the great medical expansion plan of the 1890s.

By 1908 the number of medical students, which had been growing steadily to a peak of 364 in 1881, had fallen to 224, with a nadir of 196 in 1902. The reasons have been given. This rising post-1902 trend continued strongly into our next period and with the enhanced facilities provided by the buildings of the 1890s and 1900s QUB was well placed to accommodate the student boom of the war and post-war years over the next 15 years. Furthermore, after much dithering QCB beat Cork and Galway in admitting female students, and in 1889 Miss Jean Bell made history when she was admitted to the faculty of medicine to be shortly joined by four colleagues. The last decade of the century in fact foreshadowed in many ways the great changes which were soon to come.

The Third and Fourth Periods: 1908-1948 to the Present

Progress

In 1908 the Irish universities were again reorganised, this time into their present form. QCB now became a university (QUB) with status appropriate to Edwardian Belfast, the Kingdom's eighth city, now of equal size and wealth to Dublin. From little more than a fortified trading port to over 400,000 souls in a century and a half with the largest weaving and tobacco factories, ropeworks, and output of shipping in the world, was a near miracle by the "self-made men in the self-made city". Such success showed, at times rather obviously, in the supreme confidence of its citizens in the future of the city and of self verging on arrogance and conceit. But the most obvious change in QUB this century is in its size. The 620 students in 1909 doubled in a decade and reached nearly 3,000 in 1950. They are now some 7,500. The medical school had 282 pupils in 1909 but nearly 800 in 1950 and only national policy on admission quotas and curriculum length has prevented growth to 1,000 or more. Quality and cohesion have not been sacrificed, indeed they have been strengthened through increase in the number of chairs and lectureships and by appointment of part-time clinical lecturers and examiners from the staff of the teaching hospitals backed by extension of the clinical teacher system. The partition of Ireland widened the gap between Belfast and the other Irish medical centres and this became a chasm after the introduction of the National Health Service in 1948 (which at first the Mater Infirmorum Hospital "disclaimed" though it remained a teaching hospital and an integral and important cog in the comprehensive health care wheel) when the first full-time professorial clinical units were established, medical and para-medical infra-structures were expanded, and hospitals were improved and updated and new ones built. In hospital standards, level of staffing, quality of professoriate, research activity, and international standing the Belfast school by the 1950s had reached a zenith thrown into even greater relief by the doldrums into which the southern Irish schools had drifted.

Queen's at first continued the pragmatic approach of its predecessors to clinical professorial appointments which had been so successful. The advent of the NHS, however, gave responsibility for hospital management (including, importantly, bed allocation) and staff appointments to government agencies and it was now possible to contemplate appointing outsiders to clinical professorships for the first time in the school's history. Furthermore, the machinery of joint University/NHS appointment boards now existed. Most of the chairs in pre- and para-clinical subjects had continued to be filled by non-Irishmen: 12 of the 13 professors appointed between 1920 and 1950 were from outside Ulster, evidence of a growing internationalism certainly when hospital facilities were not an issue! In 1947 (strictly just before the advent of the NHS) this openness was

extended to clinical chairs with the appointment of an Englishman, Harold Rodgers, to the chair of surgery and even crept into the RVH corridor with the appointment of Terence Kennedy, a London University graduate, to be a consultant surgeon to out-patients in 1950 and later to be a senior surgeon in charge of wards. The diplomas of the Irish Royal Colleges now yielded almost completely to those of London and Edinburgh as primary postgraduate objectives; indeed they bestowed little career advantage. Few senior staff appeared on Dublin platforms, sought advancement or examined in the Irish Royal Colleges, or published in Dublin journals; those who did were often from outside the Belfast *coterie* e.g. the late R J Kernohan was for years a senior examiner for RCPI. There were of course notable exceptions including QUB pre-clinical scientists publishing extensively in the *Irish Journal of Medical Science,* and Sir Ian Fraser who was president of RCSI in 1954-56 and a lifelong advocate of involvement by Ulster doctors in Irish medical affairs.

Since the 1950s, however, there has been a welcome change. Of the 29 clinical and para-clinical professorial department heads appointed in 1948-82, 11 have been non-Ulstermen and women and most of the remaining 18 received much of their postgraduate experience outside Ireland in stark contrast to the period 1835-1947. Harold Rodgers' (1947) and (later Sir) Graham Bull's (1951, to the chair of medicine) appointments had been the start of a strong trend, not isolated phenomena. Concomitant with this has been a growing *detente* between the Belfast and Dublin professions and cohesion of the Ulster hospital service to the school's advantage. The latter has been helped by the Mater Infirmorum, a valued teaching hospital, accepting terms in 1972 which allowed it to join the NHS thereby securing the school's cohesiveness. Advances in hospital provision and the creation of full-time clinical professorial units in the south (though these are not exactly equivalent to the "full time" units in the UK model) have narrowed the gap in academic standards: indeed in some subjects it may no longer exist, or even be reversed! Economic disparities are disappearing and recent hospital building and reorganisation in the south will further enhance clinical standards. The work of pioneers to bring the two fraternities into closer association is bearing fruit; the Corrigan Club, now over 20 years old, is only one such initiative. European politics has helped: the rejuvenation of the Irish Royal Colleges due in part to opportunities afforded by the European Community has reawoken the interest of Ulster doctors in the Irish Colleges' affairs and of the colleges themselves in their all-Ireland dimension, and we have recently seen an Ulster president in Kildare Street (Dr Alan Grant), another to be president at St. Stephen's Green (Mr Reggie Magee), and for good measure another presides over the Royal Academy of Medicine in Ireland (Professor Ian Roddie); while for the last decade the *ad eundem* fellowships of the Irish Colleges have been sought and respected by Ulstermen as have the periodic visits to Belfast of the RCSI — its first, incidentally, was in 1977, 193 years after its foundation, so perhaps growing estrangement up to 1950 was not all our fault! Medical education has helped also: the formation of national

faculties and "new" professional colleges has provided opportunities for involvement which Ulster doctors have seized wholeheartedly.

Southern, especially Dublin, doctors have reciprocated and are keen to cultivate these new relationships. Improved and cheaper communications have also played a part: the motor car has replaced the train and, earlier, stage-coach; the telephone has replaced the letter and telegram; there is improving understanding of each other, despite appearances! Politics, however, have not helped: events of the past 15 years have taken their inevitable toll but generally the northern and southern professions are on better mutual terms than at any time since the rise of Ulster unionism and the southern 'Repeal' and Home Rule movements over a century ago. No longer would a knighthood be denied to any Ulster president of the RCSI (if that were Her Majesty's intention) for seeming to question the wisdom of "the border" as allegedly it was denied to Professor Fullerton in the late 1920s for having his presidential words "in the field of surgery there should be no border" misreported in the Belfast newspapers as "Famous Belfast surgeon says there should be no border"! Most would agree that in both the scientific and professional fields the successive Belfast schools of medicine have played a role in Irish and world medicine disproportionate to their size and that of the Province, and that their structure, standards and regulation have set a high example for any school in these islands and beyond.

The Buildings

In 1903 King Edward VII opened the new Royal Victoria Hospital on the Grosvenor Road. It was convenient to the Great Victoria Street railway terminus and also to the heavy industry and linen mills of west and south Belfast. The cost was some £130,000. J.W. (later Viscount) Pirrie, Chairman of Harland and Wolff, and Mrs Pirrie, the principal benefactors, took a keen interest in its design, and its ventilation system — of the plenum type much used in ships — was largely Pirrie's inspiration. The system is still in use and moves ten million cubic feet of air per hour into a closed-ward system. The King Edward Memorial Building was opened for laboratories and dentistry in 1915, and the dental school proper took its first pupils in 1919.

Dunville Park, across the Grosvenor Road, now largely tarmacadam with its ornate tiled fountain sadly vandalised, commemorates the Dunville family. Their generosity extended also to Queen's College in the Dunville studentships which they endowed in 1872 (one in mathematical and physical sciences, the other in natural science) and which were available to female as well as male undergraduates even though the admission of the first female student (to the faculty of arts) was not until 1882. Dunville generosity also enabled the chair of anatomy and physiology to be split, and the first Dunville professor of physiology ("the whiskey professor" — Dunvilles of Belfast was then the largest whiskey

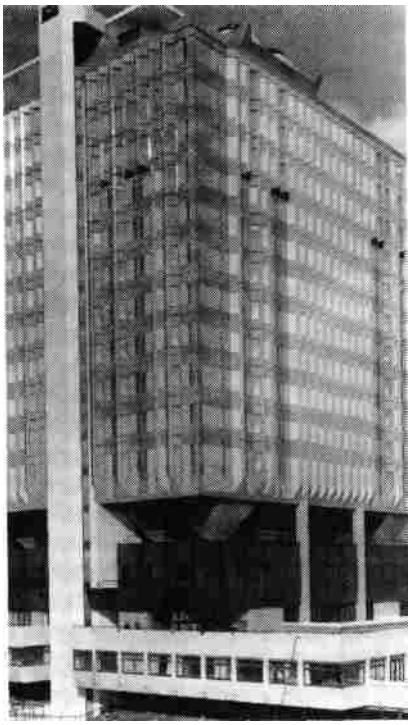


Figure 7 The new Belfast City Hospital, opened in 1985.

distiller in the world), William Henry Thompson, was appointed in October 1893.

The Grosvenor Road site assumed an increasing role in the affairs of the medical school as successive buildings were opened. The Royal Belfast Hospital for Sick Children transferred from Queen Street in 1932 and the Royal Maternity Hospital from Townsend Street in 1933. More significantly from the University's point of view, the Institute of Pathology, a Queen's building, opened on the site also in 1933 — the first QUB building to do so and which reflected the close association of Queen's with the hospital and ensured that the Grosvenor Road complex would be the centre of future medical school (clinical and para-clinical) development — as indeed it still is — even though substantial academic clinical space was provided and "embedded" in the recently-opened Belfast City Hospital tower block on the advice of the University Grants Committee as long ago as 1972 *(Figure 7)*. The Institute of Clinical Science, with the medical library, was opened in 1954, the Dental Hospital in 1965 and the Microbiology Building in 1967, and with academic space in many of the new clinical buildings (ophthalmology and otorhinolaryngology, for example) the Grosvenor Road complex then provided all the clinical and para-clinical professorial units (except Mental Health) and with a comprehensive range of facilities for clinical and para-clinical subjects other than mental health, infectious diseases, certain nervous diseases and chest conditions, and orthopaedic disorders.

Comprehensive maybe, but hardly adequate for the burgeoning student numbers; nor did the site provide ideally for all students. The Mater Infirmorum (founded in 1883 and a recognised teaching hospital since 1908) played a crucial and increasing role in clinical teaching and provision, and now much extended is an essential partner in the school. So is the Belfast City Hospital with its associated specialist facilities, and this role has increased since several professorial units have been decanted from the Grosvenor Road site to the Whitla Building (opened in 1976), *viz* therapeutics and pharmacology, anaesthetics, and oncology (with general practice resited in the neighbouring Dunluce Health Centre) or been recently created, i.e. geriatric medicine and (part of) medical genetics. It is likely to increase further as the new tower block comes into commission.

Figure 8 An aerial view of The Queen's University of Belfast (1938). The medical buildings are clustered at the eastern end of the quadrangle.

Other hospitals are linked to the school as "teaching hospitals" — the Ulster Hospital, the area hospitals of Altnagelvin, Craigavon and Waveney, and some specialist hospitals, while Musgrave Park houses the professorial unit of orthopaedic surgery.

The medical buildings on the QUB site were completed with the medicine extension to the main medical building (1913) and an extension (for biochemistry) to the Musgrave laboratories (1924). This corpus of buildings, with some extension of biochemistry to University Square, remained in use until almost the end of the 1960s *(Figure 8)*. Clinical academic space moved to the Institute of Clinical Science (RVH site) in 1954 and the departments of anatomy, physiology and biochemistry moved to the Medical Biology Centre (opened in 1967) on the Lisburn Road, formerly the site of the Institute for the Deaf, the Dumb and the Blind. Formica now replaced the wooden shelves of the bone room and didn't lend itself to the time-honoured practice of carving a name or a token of transient everlasting love!

Many will remember the expectancy in the lecture theatres as the carbon rods spluttered in the old projectors before an arc was established. Today a lecturer in the newer theatres is confronted with a perplexing fascia of dials and switches and sometimes has to give as much attention to the electronic choices as to being heard over the gentle, or not so gentle,

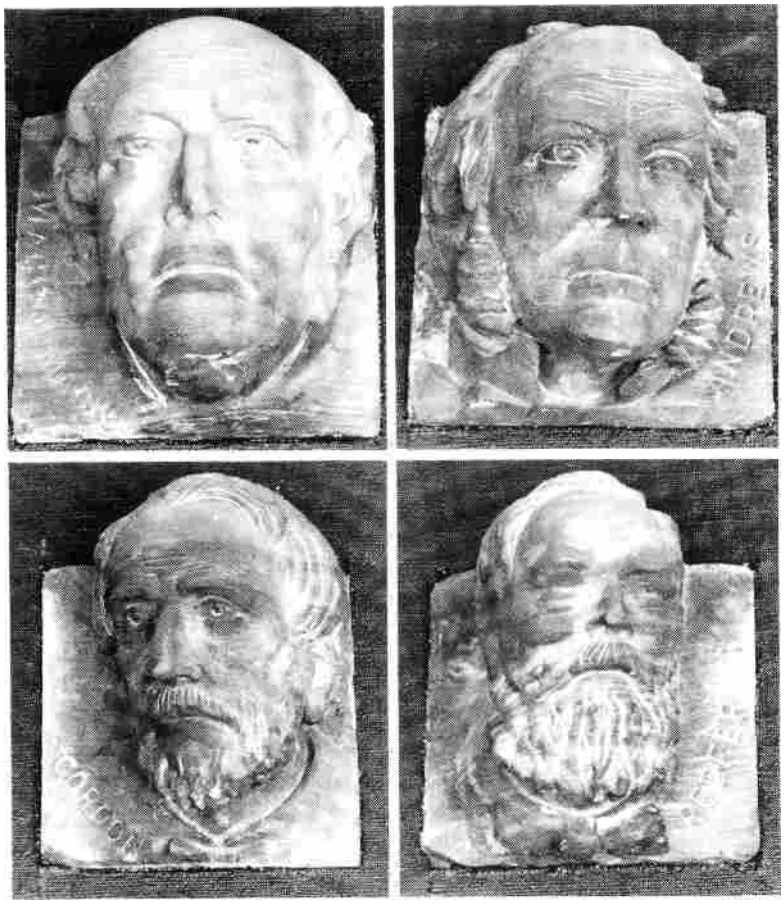


Figure 9 Terracotta heads of Henry MacCormac (1800-1886), Thomas Andrews (1813-1885), Alexander Gordon (1818-1887) and Peter Redfern (1820-1912). These were formally part of the decoration of the (Whitla) Medical Institute in College Square North and since 1976 have been displayed in the concourse of the Whitla Building, QUB.

hum of the air conditioning. The buildings which the University and the Health Service have provided for the school and associated hospitals is evidence of the importance both attach to the training of tomorrow's doctors and the prosecution of research and in doing so play their full role in providing first-class facilities without which the school could not prosper.

Opinion

Drawing on the story of the medical school how can we describe the distinctive features of Ulster medicine?

First, in its practice. Present-day Ulster medicine is the heir to a pragmatic and clinically-orientated tradition whose genesis lies in the culture of the Ulster society which spawned it. Such a society required

practical, even artisan, abilities, and provided the robust, self-sufficient, puritan and unsophisticated *milieu* of a pioneer society with its accompanying social structure, demands on character, and political perceptions. Even its educated classes had little time for philosophising or for adopting the metropolitan graces and *mores* of territorial grandees, establishment placement, or a sophisticated urban *bourgeoisie*, and its medical sons mostly thought likewise. Clinical skills, ethical standards, and educative commitment have always been high; investigative enthusiasm (and accompanying research success) less so. There have been noble exceptions — Andrews, Redfern, MacCormac, Whitla, Fullerton and Walmsley, among others, *(Figure 9)* enjoyed wide reputations through their writings, and some modern contemporaries are particularly successful and prolific, but clinical practice and teaching remained the foundations certainly up to 1948 and arguably still today as judged by the local fraternity's emphasis on clinical instruction and professional values. The achievements of the Belfast hospital staffs in the recent civil emergencies, widely and rightly regarded as evidence of their depth of clinical skill and commitment, in turn has enabled them to withstand unusual pressures in a way which is the envy of colleagues elsewhere.

Research, while not wanting, was never a prominent feature of the school, though it has become increasingly evident since the creation of the full-time clinical academic units. We have many distinguished researchers, internationally-known units, and university "centres of excellence", but existing evidence, such as it is, indicates a lower output of published research than in many other medical schools in the United Kingdom even though the quality is high. One aspect of our research, however, is significant: our full-time clinical colleagues have contributed to the total research effort of the school to an unusual degree, one of the more remarkable aspects of contemporary Ulster medicine. It would be invidious to single out stars from this galaxy, but the clinically research orientated acute coronary care, renal transplant, endocrine, dermatological, neonatal pathological, and neurological and neuro-surgical units, amongst others, have reached pre-eminence mainly (though certainly not exclusively) without *formal* university connection. This underlines the remarkable skills of the Ulster profession and our historic emphasis on clinical-led research which has enabled these and other specialities to develop from observations at the bed-side. This could not have been done, however, without the umbrella of a medical school and teaching hospitals: much of the research appetite and skills among health service staff were developed by precept and example from their (usually QUB) teachers, and many were and are stimulated and assisted by university staff.

Second, in its high-minded adherence to the tradition of our profession as teachers. Imparting and seeking knowledge were fundamental characteristics of society generally during the earlier days of the school and were powerful facets of the new awakening in the early 19th century. Inst and the hospital were founded at the very height of this enthusiasm for enquiry — into anything and everything from national culture and heritage to the

Figure 10 Professor Sir John Henry Biggart, Dean of the Medical Faculty (1944-1971).

wonders of the new factory machines — which blended with a puritan austerity to produce a disciplined intellectual vigour which ensured that many leading medical men were also prominent in the scientific and cultural life of Belfast — of the pioneers, McDonnell, Drummond, Marshall, MacCormac, Andrews and Drennan spring to mind. Most of our learned and cultural societies date from this period including the Ulster (then Belfast) Medical Society in 1806. Indeed, Belfast came close to generating a modest *cadre* of Renaissance men: but not quite; social structures, intellectual priorities, and above all geography got in the way and our medical school became filled not with a national *cognoscenti* but with the sons of Ulster's farmers and tradesmen to whom the practicalities, not the abstractions, of life were all-important and in whom Victorian evangelicalism inspired a belief in the virtues of application in this world to obtain salvation in the next! Some were innovative researchers and creative thinkers; but they were few, and early Belfast medicine had probably only Andrews, McDonnell and Malcolm of undoubted questioning genius to rival Stokes, Graves, Corrigan, Wilde and the other major luminaries of the contemporary Dublin school. This emphasis on instruction as a professional duty and vocational ethic is still strong in Belfast — Biggart, *(Figure 10)* Thomson, Rodgers, Walmsley, Pritchard, Macafee, Bull, D C Harrison, and many others, will be remembered as teachers after their contributions to the literature, however worthy, have faded though certainly not disappeared, and in none is this vocational ethic more strongly developed than in the *corps* of clinical teachers.

Third, in the compassion and commitment of its practitioners. In Ulster there is a common cultural and historical identity between doctor and patient which if not unique is unusual. Ulster's doctors were never Oxbridge or Pall Mall gentlemen owing their appointments to high birth or the cruder excesses of patronage and nepotism. Nor were they the exclusive oligarchy of the Dublin Anglo-Irish minority, albeit a brilliant one. No great social or cultural gulf separated them from those they tended, and they saw themselves and their patients as equals distinguished only by the skills they possessed. Such cultural identity has no doubt led to patients seeking as their practitioners their own co-religionists, and this

has a debit as well as a credit entry on the balance sheet — an intriguing topic but not one to develop here.

Fourth, in the coherence and cohesion of the profession. In our whole history the great majority of students have been from Ulster and until the last 40 years all our clinical staff in university and hospitals have been from Ulster also, and moreover overwhelmingly our own graduates, and this persists particularly in general practice up to today. In-breeding can be vitiating and harmful, but up to at least 15 years ago the amount of hybrid vigour from imports was adequate compensation. These have declined recently for obvious reasons and if there is a potential source of weakness for the future, especially to our university research activities, it is this very factor of excessive self-perpetuation.

This in-breeding and self-fertilisation, however, while not of themselves desirable, testify to a remarkable basic strength. For 150 years the profession in Ulster has been largely replenished from its own stock, and except for non-clinical *academe* it has been replenished from its own medical school. Few regions, or even countries, could do so over so long a period yet without serious detriment to standards. By any criteria the school and the Ulster profession thrive, a great credit to all concerned since they are largely taught by and base themselves on compatriots and graduates. The local profession has in fact, generation after generation, thrown up those capable of high professional and academic office both at home and abroad. This is the litmus test of the secure basis on which the Ulster profession is founded.

In fact, it is this very cohesion that made for the success of our medical school and, as a by-product, made the joint appointment system possible. In Britain academic clinical staff are often considered outsiders by the hospital patients, and even by staff! They tend the sick as honorary consultants and inevitably friction can result between them and the health service consultant staff. This is not so likely in Northern Ireland where academic staff are jointly employed by university and Health Board, and in 1948 it seemed the most natural thing in the world to further cement the long-standing school and hospital relationship through this joint appointment system. National developments are placing the system under some strain, but it should survive if for no other reason than in Belfast it merely formalises a relationship which has existed for 150 years. It has survived special studies chaired by distinguished outsiders (including the late Lord Cohen of Birkenhead) and, if it should pass, something of our traditional cohesion will be lost.

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Bibliographical Note

We have given no references nor bibliography since we consider these unhelpful in a work of this type. Most of the later material is from university and hospital annual publications under dates or from well-known secondary sources (e.g. *Queen's Belfast 1845-1949: The History of a University*, by T W Moody and J C Beckett, 2 vols, London: Faber and Faber Ltd, 1959); much of the earlier material is from the articles of one of us (PF), particularly "The foundation of the 'Inst' medical department and its association with the Belfast fever hospital", *Ulst Med J,* 45: 107-145 (1976), and "The first medical school in Belfast, 1835-1849", *Med Hist,* 22: 237-266 (1978); while a general history of the school over the whole period, with bibliography, is in "Medicine in Ulster: The Belfast School", by Peter Froggatt, in: *A Portrait of Irish Medicine*, edited E O'Brien, Anne Crookshank and G Wolstenholme, Chapt 6, pp 183-213, Swords: Ward River Press, 1984. Some of the material is abridged from Peter Froggatt's article "The distinctiveness of Belfast medicine and its Medical School", *Ulst. Med. J,* 54: 98-108 (1985), and we are grateful to the editor for countenancing this.