Eur J Orthop Surg Traumatol (2017) 27:713–714
DOI 10.1007/s00590-017-2000-2

A career in orthopaedics

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Received: 14 June 2017 / Accepted: 15 June 2017 / Published online: 21 June 2017

With a lot of commitment to their studies and an idyllic charm, enthused high school students succeed the School of Medicine. After 2 years in amphitheatre lessons, they finally begin clinical rotations. With emphasis on training and caring for patients, they willingly sacrifice a lot of personal hobbies and interests. They are motivated and enthusiast, often faced with pessimism for the future, and less often with inattention, cynicism and disregard. After a lot of sacrifices and stress, the medical students graduate the School of Medicine. Some graduate with honours and with a high scholastic talent, mechanical ability and manual dexterity, they decide to follow a career in orthopaedics and enter an orthopaedic training programme.

During the orthopaedic residency programme, most residents are initially enthusiastic by the knowledge, expertise and judgment of their senior residents, professors and heads of departments. Little time exists outside hospital; amalgamated with the phobia of burnout, most of time is spent in hospital duties, auditoriums and seminars, or studying the bibliography, surgical approaches and techniques. Some residents form strong bonds with colleagues, consultants and professors and generate a dynamic synergy; some are blessed to be trained by experts, mentors and leaders. They are introduced to journals and international memberships; they are invited by prestigious editors and start reviewing and writing. These help to build the basis for a prolific career. The residents finally achieve orthopaedic licensure; some find caring for patients with cancer particularly rewarding and decide to pursue a fellowship in orthopaedic oncology; others are enthusiastic by trauma, shoulder or spinal surgery and have opted for a respective fellowship and subsequent practice [1].

At fellowships, they meet important people, build dynamic friendships, study hard and write a lot to share knowledge. Then, they meet wonderful people, prestigious editors from the international medical community; they introduce them to their journals and invite them to their reviewers' panels and editorial boards. They help them "to stand on the shoulders of giants, to see more and farther than predecessors, not because of keener vision or greater height, but because they are lifted up and borne aloft on their gigantic stature" [2–4]. At the end of fellowship, they join a prestigious practice. However, the discipline is challenging, demanding, consuming and rewarding. Balancing personal and professional life is a common challenge for surgeons; family is often overlooked [5–9]. Financial success, international fame and recognition and personal interests/family are competing interests. Identifying personal values and protecting personal time are necessary to achieve work–life balance [1, 10–12].

Orthopaedics is a medical specialty that focuses on the diagnosis, care and therapy of patients with disorders and syndromes of the musculoskeletal system. Diagnostic methods and aetiological therapies of traumatic, non-physiological and pathological syndromes, pharmacologic and prophylactic therapeutic policies and targeted therapeutic schemes synthesize an enthusiastic orthopaedic practice. A giant anode has occurred in European propaedeutics and academics in orthopaedics and

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traumatology within the last 3–4 decades. A plethora of residency programmes, competitive fellowships and clinical rotations, academic symposia and prolific research and educational activity on basic and didactic themes in the sphere of orthopaedics and traumatology are available. There are many areas of special interest that orthopaedic surgeons can emphasize their practice such as trauma and poly-trauma of the musculoskeletal system, arthroscopic and arthroplasty surgery, paedo-orthopaedics, podiatric surgery, carpus and dactylic surgery with traumatic and genetic anomalies, microsurgery, spondylopathies like scoliosis, kyphosis and spondylolisthesis, osteoporosis and pharmacologic and orthopaedic oncology [13]. In 1741, Nicholas Andry de Bois-Regard coined the word "*orthopædics*" in French as *orthopédie*, derived from the Greek words *orthos* (ὀρθός "correct", "straight") and *paidion* (παιδίον "child"), since much of the early work in orthopaedics involved treating children with skeletal anomalies [14]. Currently, orthopaedic surgeons continue to treat children. Some confine their practice to specific areas of the musculoskeletal system. In a future era of subspecialization, probably we will be faced with orthopaedic surgeons practicing on a specific bone, fracture type, or syndrome [13].

Orthopaedic oncology has its roots in European medicine of the 1800s where sarcomas were first classified on the basis of their gross characteristics (1804) and amended on the basis of their histologic features (1867). Local surgical treatment has been related to unacceptable mortality and led to amputation (1870s) and remained so until limb-sparing resection was cautiously embarked (mid-1900s). Introduction of adjuvant therapies (1880s) remained largely ineffective until the advent of (neo-) adjuvant chemotherapy (1970s). Pragmatically, in the past 40 years, the amalgamation of these techniques enhanced by orthopaedic oncology fellowships, societies and regional cancer centres has led to current preponderance of limb-salvage surgery and greatly improved survival rates [15, 16].

In this special issue, current orthopaedic oncology practice is reviewed in papers written with the scope of a non-dogmatic and egocentric dialogue by polyethnic orthopaedic physicians, experts in orthopaedic oncology. Dedicated to continuous medical education, the authors provide educational manuscripts with state-of-the-art techniques, innovations and modifications of the traditional therapies, commentaries and illustrations that are expected to be extremely helpful in decision making in clinical practice. Research remains the most important aspect for the patients; it begins from and returns to the patients. In the next years, more advances and innovations are expected in diagnostic imaging, minimally invasive treatments, metallurgy of implants, allografts and chemotherapy agents. Better metrics for measuring outcome should clarify how effective these would be for the patients' outcome.

Compliance with ethical standards

Conflict of interest No benefits have been or will be received from a commercial party related directly or indirectly to the subject matter of this article.

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