

Jane Y. Chin
optimises and innovates
industry's field-based MSL
programmes. She is the
President of the Medical
Science Liaison Institute and
founder of the MSL Quarterly
Newsletter.

Biotechnology's special forces: Field-based medical science liaisons

Jane Chin

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Abstract

Biotechnology companies with a product commercialisation strategy are deploying field-based medical science liaisons (MSLs) to increase awareness of a therapeutic market, support clinical trials, and educate the healthcare community on appropriate product utilisation. Attracting experienced MSLs to smaller or younger companies remains a significant challenge for MSL directors. Comprehensive MSL training programmes are also lacking at young biotechnology companies, even though directors interviewed in this paper all agreed that training is a key provision to equip MSLs for quality performance. As field-based medical programmes are expanding in the biopharmaceutical industry, small MSL teams often compete in the same market dominated by large pharmaceutical MSL forces. Small teams that are staffed with experienced MSLs, trained rigorously on both technical and non-technical competencies, and motivated toward effective teamwork are positioned for success. Medical science liaison directors who proactively communicate with senior management on the value that MSLs bring to their companies are more likely to obtain resources for training and will leverage their MSL programmes for growth.

Keywords: medical science
liaisons, field-based medical
programmes, training, thought
leader development,
teamwork, MSL directors

INTRODUCTION

Today's biotechnology industry is no longer content with providing service or technology platforms to large pharmaceutical companies. More and more biotechnology companies are focusing on product development and commercialisation. Small companies bringing novel products to market look for unmet needs in niche therapeutic areas as a basis for competitive advantage. Niche product commercialisation can yield outstanding returns and positions a company for growth, but niche indications often lack widespread awareness in the healthcare community. As a product enters late-stage clinical trials and demonstrates high probability of approval, the company needs to deploy clinical support specialists to increase awareness on a therapeutic market and to prepare the healthcare community for appropriate product utilisation. Biotechnology's special forces, field-based medical science liaisons (MSLs), are

emerging during Phase III clinical trials to provide critical support of the product's clinical and educational initiatives.

The role of today's MSL has not deviated far from 1967, when Upjohn Company first created specialist positions to enhance research collaborations between physicians and the company.¹ MSL programmes have since evolved from sales and marketing functions to be organised under medical or scientific affairs; today's MSLs often hold doctoral degrees and have advanced research training. MSLs interface with nationally renowned thought leaders or opinion formers who are generally inaccessible to pharmaceutical sales representatives. MSLs with extensive research experience and therapeutic expertise can engage in peer-to-peer discussions with thought leaders on treatment issues, side-effect management strategies, and current or future research. The constellation of MSLs' field-based activities constitute what is generally called 'thought leader

Jane Chin, PhD
President,
MSL Institute, LLC,
2103 Voorhees Avenue,
Suite 3,
Redondo Beach,
CA 90278, USA

Tel: +1 310 542 5642
Fax: +1 310 362 8848
E-mail: jane@mslinstitute.com

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Biotech MSLs need an entrepreneurial approach to problems

development'. In other words, MSLs build the relationship capital between companies and physicians who not only diagnose and treat patients, but drive research direction, shape treatment paradigms, influence healthcare decisions and even formulate national policies toward a disease area.

Biotechnology companies face unique challenges when implementing field-based medical programmes, including limited resources and infrastructure available in large pharma companies (Table 1). In an increasingly competitive market where advantage is transient and the bid for thought leaders' time is fierce, small MSL programmes must be both efficient and effective. This paper examines the challenges faced by MSL directors at biotechnology companies and suggests solutions for implementing an effective MSL team.

THE CHALLENGES

Large geography can deter

Medical science liaisons in biotech companies can find themselves with large

geographies and limited organisational support. Visits to research sites, coordination of educational programmes, attendance in scientific conferences and participation in corporate business meetings quickly amount to significant travel. MSLs in a large team of 25 can travel for at least half their time, including extended, overnight travel. MSLs in a small team, therefore, can expect to be road warriors even during a slow quarter. Frequency of extended, overnight travel can deter highly qualified candidates who value work–life balance from considering the position.

Medical science liaisons in biotech companies also assume many roles, often without established workflow and resources available in large companies. Without an extensive support network, liaisons in biotech companies need to develop an entrepreneurial approach to solve problems – in other words, an experienced MSL who has mastered both the art and science of the role, including thought leader development, territory management and cross-functional

Table 1: Critical factors in staffing a successful medical science liaison programme

Factor	Issues	Recommendation
Geography	Large geographies can deter	Adopt an impact-centric approach rather than a coverage-centric approach, tailored to a product strategy: <ul style="list-style-type: none"> • Top-tier thought leaders with national influence (innovation, advocacy) • Clinical investigators with research capacity (strong research infrastructure and adequate patient population) • 'Rising stars' with national thought leader potential and/or research capacity potential
Talent pool	Fierce competition for candidates with prior MSL and industry experience	Depending on staffing timelines: <ul style="list-style-type: none"> • Attract pre-existing talent pool with competitive compensation packages and/or growth opportunities • Deploy a contract MSL team with a succession or integration plan • Enrich talent pool with custom competency maps to train candidates without prior MSL or industry experience
Training	Limited or no training resources	Assuming lack of MSL training programme: <ul style="list-style-type: none"> • Hire seasoned MSLs and initiate <i>de novo</i> training projects within the MSL team, refine and enhance as training resources become available • Leverage existing training resource (usually sales), with appropriate customisation for the MSL team
Metrics	Qualitative metrics in a numbers-driven environment	Measure performance leadership in: <ul style="list-style-type: none"> • Innovation • Efficiency • Efficacy
Team dynamics	Remote communication and coordination challenges	Encourage 'GTP', good team practice: <ul style="list-style-type: none"> • Optimise internal communication and coordination processes, within the MSL team and between departments • Install cross-functional teams in product initiatives

MSL candidates want both corporate stability and management stability

Experienced candidates desired by biotech companies often come from large pharma

Outsourcing MSLs may not save companies any more time than directly hiring MSLs into the organisation

teamwork. Candidates with scientific savvy, sharp business instincts and excellent interpersonal skills score high on the MSL director's list; these MSLs are likely to engage a thought leader in rigorous scientific discussions, discern topics that fuel thought leaders' interests, and remain focused on the business opportunities in the interaction.

Limited talent pool

The MSL director's top priority in establishing a field-based medical programme is hiring the right people. Biotech companies often do not have extensive training programmes for MSLs beyond core therapeutic and product knowledge. Thus, the pool of experienced candidates desired by biotech companies comes from large pharma, and competition for experienced MSLs is intense. Hiring can be a lengthy and arduous process for most MSL directors, and all directors interviewed in this paper have had to extend hiring deadlines to fill positions with the right candidates. Some smaller companies can offer very competitive salaries compared with salaries offered by large pharma; however, candidates may view the risk of joining a smaller company to outweigh financial compensation.

Candidates prospecting with young companies closely examine product pipelines, commercial portfolios, financial stability and management philosophy. The inherent risk associated with young companies and start-up organisations demanded that MSL directors emphasise on reassuring candidates. Directors can spend a lot of time convincing candidates that their companies have a quality programme and that the MSLs would have the support they needed. Candidates are understandably concerned with the longevity of a smaller company, and are worried about job security, especially if they come from companies that no longer exist. Candidates prospecting smaller companies may even scrutinise the companies' financial statements.

Unlike large MSL programmes where MSLs may report to a field-based regional manager, liaisons in biotech companies frequently report to the MSL director. Therefore, apart from corporate stability, candidates also want management stability. Medical science liaisons are willing to leave a cushy position in large pharma to work with a director with whom they are compatible. David Woo, PhD, Senior Director of Medical Affairs at Ligand Pharmaceuticals, goes a step beyond telling candidates about Ligand and what the company has to offer. 'Part of the reason why an MSL joins a company is to whom they will be reporting to,' said Woo. 'Our MSLs shouldn't have to worry about whether I am going to be here for the long term. They should feel comfortable working for me, and I need to support them as much as I can – it's a two way street.'

Outsourcing has its limits

Even with tight hiring deadlines and a slim picking of choice candidates, the MSL directors interviewed here did not choose to launch programmes with contract MSLs. 'If I only need one or two MSLs – the time it takes to screen, interview, hire and train contract MSLs would take the same amount of time as if I were to hire full-time employees (FTEs). It doesn't make a lot of sense and it really doesn't save any time. It doesn't make my life easier in the short term. Eventually I would need to hire full-time MSLs,' said Mimi Tom-Chu, PharmD, Director of medical science liaisons for Chiron Corporation. Woo came from an organisation that had outsourced MSLs, and found mixed results. 'You may have a lot of bodies, but they may not have the appropriate skills and aptitude we are looking for the job,' said Woo. The stakes may be even higher for directors at conservative companies, where they would not want to be seen as 'handing off' the responsibility of overseeing MSL activities by outsourcing. Still, these MSL directors agreed that outsourcing is an option if a programme must rapidly

MSLs will leave large companies for opportunities available in fledgling programmes

expand or if the MSL team is looking to enter into a non-core competency area.

PRACTICAL SOLUTIONS FOR BUILDING A SUCCESSFUL MSL PROGRAMME

MSL directors leading small MSL teams need a well-concerted strategy to ensure the programme's success. In addition to hiring the right people, MSL directors should design a strong training curriculum, continue to get management agreement on the value that MSLs bring to the organisation, and optimise teamwork and communication.

Attracting talent

Being a member of a small team has its rewards: communication crosses fewer corporate layers and the impact that MSLs create is transparent across the organisation. Indeed, MSLs who leave big pharma desire the flexibility and opportunities that younger organisations offer. Experienced liaisons know they can afford to choose their working environment, and thoroughly research a company during the job search. Directors must be prepared to talk about the company's product portfolio with candidates. Woo has spent long hours on the phone with prospective MSLs, sometimes going through entire scientific presentations to answer candidates' questions about specific products. The MSLs Woo hired knew what they wanted from an organisation, and are committed to the job. Other MSLs may be looking to join a company where they are perceived as scientific professionals. Seasoned MSLs know the regulations, and do not shy from asking directors whether the company is committed to allowing MSLs to do their jobs, and not be a part of sales or be judged by sales performance in a region.

Field-based positions can be limiting in career advancement choices unless MSLs relocate to the corporate office. MSLs sometimes leave large companies for

opportunities in field management in a fledgling MSL programme. If the product is successful, MSL teams can expand to create regional field-management positions. Some MSL directors segment the MSL career into levels (for example, MSL-Level I, II, III) through which the MSL can advance to more senior positions. Directors can also accommodate corporate rotations or internships to allow MSLs to explore other careers. 'A liaison can do a marketing rotation or a business development rotation at corporate headquarters, if that's a direction he or she is interested in,' said Tom-Chu, 'but most MSLs are happy with the MSL role and don't want to relocate. Many see this as a fun job, given the right person in the right territory.' Woo agreed that advancing to a management role is not necessarily a goal that all MSLs strive for: 'One of our MSLs used to manage 12 people before he joined us – he's been there and done that – he wanted to return to being a MSL.'

Technical and tactical training for MSLs

MSL training is heterogeneous across biopharmaceutical companies. The scope of MSL training in industry may range from a box of binders (BOB) to elaborate programmes featuring product knowledge and various competencies desired of a 'fully equipped' MSL.² Most biotech companies do not have dedicated MSL trainers or comprehensive training programmes. Still, MSL directors appreciate the importance of training on non-technical skills in addition to delivering clinical information. Tom-Chu wants to develop a comprehensive training programme for her MSLs, but acknowledges that training beyond basic scientific information has been a challenge. 'We work in a very technical area, and advanced training enables our MSLs to dialogue with the physicians, hopefully to the point where the MSLs are more knowledgeable than the investigators about the products and

MSL directors appreciate the importance of training for their MSLs, but have limited or no resources

Candidates want to join companies that allow them to do their jobs

Launching an MSL programme is no guarantee of continual managerial support

MSL teams are deployed for highly specific missions, are results-oriented, and often face oppositions en masse

Poor communication with upper management can lead the MSL team to be viewed as an ancillary or even redundant position

Training can make the difference between a team's 'hitting the ground running' and 'hitting the ground'

therapeutic area.' Additional skills that Tom-Chu sees as important include strong command of good clinical practice (GCP), capacity to qualify research investigators, and the acumen to determine whether research concepts have scientific merit and fit into corporate goals.

MSL teams in a biotech company are not unlike special forces in the military; MSL teams and special operations units are deployed for highly specific missions, are results-oriented, and often face oppositions en masse. Deploying special forces for a mission without rigorous tactical and strategic training would be unthinkable, yet MSL teams are often quickly served heaps of clinical data within a short time span and released into the field. 'In biotech, everyone has so much to do that training seems to always be the last item on the list,' said Tom-Chu. 'If you don't train someone, no one complains, but if the MSL hasn't visited Dr. X, then sales or marketing complains.'

Hiring seasoned MSLs may reduce the need for a 'new recruit's boot camp', but to successfully compete in a market dominated by large pharma forces, each member of a small MSL team must be effective both independently and cooperatively. Just as special operations units receive extensive training involving project planning, operations and intelligence handling, small MSL teams can benefit from best practices on teamwork for special projects such as conference coverage or programme-wide initiatives. Biotech companies anxious to see results from a new MSL team frequently relegate training as a luxury afforded by large pharma, but younger companies cannot afford not to prepare their troops more thoroughly than large pharma rivals in areas of operations spanning science and commercialisation. A well-designed and executed training programme can make the difference between a team's 'hitting the ground running' and 'hitting the ground.'

Getting management agreement

Senior management may be aware of the importance of MSL activities in cultivating field-based research collaborations, but launching a programme is no guarantee of continual management support. Getting management agreement on performance metrics is key for many MSL directors, especially when functions compete for precious resources available in a small company. Management is used to tangible deliverables and quantitative measures of returns on investment. Hence, the intangible nature of MSLs' deliverables requires directors to continually demonstrate to management the value that MSLs are providing to the company.

The MSL role remains neither well defined nor well understood by many industry executives. Hence, MSL directors must play a public relations role as 'the liaisons' liaison' within the organisation. Programme leadership must proactively communicate with sales and marketing and help educate these functions on the MSL role and on programme deliverables. Poor communication (or lack thereof) can lead the MSL team to be viewed as an ancillary or even redundant position to sales and marketing, where MSLs are perceived as 'overpaid sales reps'. Directors should also encourage discussion within the MSL team on the role specific to their organisation. 'The people we hired have a lot of experience and knew the job, but since the job differs from company to company, they share their concept of what a MSL should do within the boundaries of current regulations,' said Rodzvilla, 'candidates are very careful not to accept positions where they feel they may be pressured into "tweaking" the rules.' Value-driven MSL activities may be differentiated from numbers-driven sales activities by emphasising the quality and impact of thought leader interactions, regulations surrounding dissemination of scientific information,

and long-term contribution of MSLs' activities to company growth.

Management involvement is critical when delineating programme objectives and when establishing performance metrics. Woo agrees that questions of measuring the activity-level of MSLs are really an issue of metrics. 'We need a way to capture MSL activities without imposing quotas,' said Woo. The current regulatory environment in the USA is such that industry's promotional and marketing practices are increasingly scrutinised. Companies assume risk when imposing quotas on MSL activities, since quotas are historically used to measure sales activities. The qualitative nature of MSL deliverables thus demands integration of MSL activities into the company's franchise strategies. Product life cycle management strategies can serve as platforms for measuring the innovation, efficiency and effectiveness of the MSL programme. Depth of scientific exchange between MSLs and thought leaders contributing to current clinical evidence and innovative applications, efficiency in clinical trial processes that MSLs manage (including timely study activation, appropriate patient recruitment rate, publication plan fulfilment), and the effectiveness at the programme level to execute strategic initiatives with tactical plans profoundly impact an organisation's mid- to long-term competitive performance.

Optimising teamwork and communication

A successful MSL programme is diverse, with MSLs from various research training, educational background and work experience. Seasoned MSLs sought by programme directors are those who can quickly map business objectives, establish priorities and execute plans: in other words, translate scientific questions into healthcare applications that positively impact the organisation's business. To be effective, MSLs and programme leadership must communicate with both external and internal customers, and

building strong internal communication networks are essential for excellent external customer service.³

Ill-preparedness of any one member in a small team profoundly resonates within the whole. Whereas a programme of 50 MSLs can readily compensate for the ineffectiveness of one, a group of five MSLs may not be able to cover for the slack of an incompetent peer. Effective teamwork requires consistent practice, and isolation can occur in small MSL teams. 'One of my challenges right now is to keep our MSLs motivated,' said Woo, 'the liaisons are out there in the field on their own. We need to help them as much as possible to become a team regardless of where they are in the country.' Woo encourages his MSLs to share experiences with each other and coordinates group activities as part of an effort to build a culture within the MSL programme. Team cohesiveness can also be fostered through regular teleconferencing or web-conferencing. Programme directors can tie group meetings at key scientific or training conferences where the entire MSL team convenes. When selecting third-party team-building services or consultants, MSL directors should account for the team dynamics unique to field-based personnel.

CONCLUSION

Medical science liaisons are a growing professional base in an industry that is seeing diminishing returns on its sales representatives. While field-based medical programmes are well entrenched in large pharma, MSL teams are emerging special forces in biotech companies, especially in companies with compounds in late-stage clinical trials.⁴ MSL teams in biotech companies have large geographies, limited resources and lack of established support infrastructure. Thus, hiring the right people is top priority for MSL directors. A well-staffed, well-trained team is poised to compete in a market dominated by large pharma MSL forces. Proactive dialogue with executive management and

Qualitative nature of MSL deliverables demands integration of MSL activities into franchise variables

When working with remote teams, motivation and building a team culture can be challenging for MSL directors

Seasoned MSLs translate scientific questions into healthcare applications that impact positively on the organisation's business

sales and marketing functions can reinforce the MSL programme's position as value-drivers in the organisation. Optimising team communication and development of a team culture instills effective teamwork.

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