



# Analysis of mentoring available to Scottish Life Science companies

Final Report for Scottish Enterprise

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# Contents

Executive Summary	i
1. Introduction	1
2. Activity and Demand	3
3. Weaknesses and Gaps in Provision	13
4. Conclusions and Recommendations	16
Appendix A: Consulted Organisations	20
Appendix B: List of Acronyms used	22

## Executive Summary

This report outlines the findings from a study into mentoring services available to Scottish companies in the Life Sciences sector, based on work undertaken between February and April 2015.

The report was commissioned by Scottish Enterprise (SE), which has a key role in helping the sector achieve the Scottish Government's ambitious target of doubling turnover and GVA in the sector by 2020.

Mentoring is potentially a key element of the support landscape and this report describes and provides commentary on the extent of mentoring in the sector, and make recommendations as to how the Scottish Life Science Advisory Board (LISAB) can contribute to the landscape.

The main study method used was stakeholder consultation supplemented by desk research.

### Activity and Demand

Overall, the extent of mentoring activity in the Life Sciences is low, with support sought more likely to be in relation to specific business issues and from a variety of people rather than a single point of contact.

The majority of current mentoring activity appears to be initiated and maintained through informal networks, mainly comprising business people involved in the sector, or from referrals from business support organisations or investors.

Formal mentoring programmes are restricted to the start-up stage and are non-sector specific, with only a small proportion of mentees coming from Life Sciences.

Identified mentoring services were:

- [Scottish Enterprise](#) – there are four SE supported programmes that provide “mentoring like” services:
  - the High Growth Team provide support to companies with the potential to achieve high growth and around 30-35% of their portfolio

are made up of Life Sciences firms, however, they regard themselves more as advisors than mentors

- Business Mentoring Scotland provide mentoring services to a wide variety of businesses, however, its activities in the Life Sciences are limited, with few active mentors or firms
- Medium term expert support products provide 30% funding for an external consultant in variety of areas including strategy development, leadership and organisational management and domestic and international market development
- GlobalScot is a mentor matching programme focussing on Scotland's key sectors, including the Life Sciences. There is a pool of 80 Life Science specific mentors, who provide a broad range of *ad hoc* services to companies. Once a match has been made the programme takes a step back and the relationship is driven by the mentor and mentee;
- **Membership organisations** – mentoring services provided by membership organisations are rare although there are a number of ways in which they provide “mentoring like” services:
  - organising support programmes and events that contain elements of mentoring
  - organising networking events to facilitate the forming of mentor/mentee relationships
  - signposting interested mentors or mentees to relevant individuals or organisations;
- **Knowledge Exchange** – although mentoring is not something that Knowledge Exchange organisations tend to offer, there is some evidence that links between firms and academics can persist over time, with academics taking a “mentoring like” role;
- **Private investment** – none of the consulted Business Angel investment groups regarded what they do as mentoring, although in practice their services often contain elements of mentoring, with the provision of non-exec directors and both general business and specialist advice;

- **Business incubation** – both of Scotland’s Life Sciences incubation centres, although they do not regard themselves as providing mentoring services, offer a wide range of “mentoring like” services, involving support to both tenant and non-tenant businesses, and providing access to wider support networks;
- **Public Sector** – other public sector support organisations, such as Business Gateway, tend to have little involvement with the Life Sciences; and
- **Mentoring Services** – three organisations, beyond Business Mentoring Scotland, provide formal mentoring services: Entrepreneurial Scotland (previously the Saltire Foundation), the Royal Society of Edinburgh and Strath 100. All focus on a specific institution or network, and none have particularly extensive experience with the Life Sciences.

## Demand

There was a broad consensus amongst stakeholders that there is a lack of demand for mentoring services from amongst Life Sciences firms, preferring instead to access advice on specific issues from multiple sources through informal networks. However, it is difficult to make any definitive statement on the level of demand without engaging Life Science businesses.

## Weakness and Gaps in Provision

The main identified weakness was a lack of supply of experienced mentors due to a lack of serial entrepreneurs and senior managers with small business experience, all linking back to a lack of ‘critical mass’ of Life Sciences businesses in Scotland. This is in contrast with Cambridge, where there is a more highly developed mentoring culture, with senior managers often using mentoring as an opportunity to further their own personal development.

Further weaknesses include difficulties for businesses accessing customers, a gap in support provision between the start-up and high growth phases and a lack of venture capital funding for those looking to progress beyond the Angel funding stage.

## Recommendations

There is a lack of evidence of demand to recommend the creation of a new Life Sciences specific mentoring programme or network. There are, however, three broad areas of recommendations, the general approach, communications failures and complementing existing activities:

- general approach:
  - keep emphasis on informality
  - consider ways to attract international Life Sciences experts and serial entrepreneurs to Scotland
  - ensure a good match between potential mentors and the need of Life Sciences firms in Scotland;
- addressing communications failures:
  - encourage engagement and sharing of contacts between senior management in the Scottish community
  - encourage mentors to be proactive in their engagement
  - develop a focus on leadership beyond basic problem solving
  - encourage a greater focus on issues around market access including internationalisation and exporting
  - stimulate engagement in workshops, tutorial and networks; and
- complementing existing activities
  - create stronger links with UK and wider advisor networks
  - work with identified formal networking and mentoring organisations to encourage a better understanding of issues face by Life Sciences firms.

# 1. Introduction

This reports sets out the findings to emerge from a study into Mentoring in the Life Sciences sector in Scotland, based on work undertaken between February and April 2015

## 1.1 Background

The Life Sciences was identified as a key sector in the Scottish economy in the Government Economic Strategy in 2011, with the Scottish Life Science Strategy published the same year setting ambitious targets for doubling the turnover and GVA of the sector to £6.2bn and £3bn respectively by 2020.

As Scotland's main economic development agency, Scottish Enterprise has a key role is supporting the industry in hitting these targets. Following the publication in 2013 of a Scottish Government report<sup>1</sup> outlining the extent of entrepreneurial mentoring in Scotland, Scottish Enterprise has contracted EKOS to investigate the extent of mentoring in Scotland's Life Sciences industry.

## 1.2 Study aim and objectives

The objectives of the study were to:

- identify and provide a detailed summary of organisations offering mentoring services with specialist life science expertise accessible to Scottish companies;
- describe the services provided;
- provide a commentary of the mentoring provision for Life Science companies including current usage, areas of strong provision, gaps and the range of services a firm could access as it develops; and
- make recommendations as to where Scottish Life Sciences Advisory Board (LISAB) mentors could contribute to the landscape.

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<sup>1</sup> Mentoring in Scotland, Scottish Government 2013



## 1.3 Study method

The main study method used was stakeholder consultation with:

- elements of the public sector support network;
- private sector investors;
- industry membership organisations;
- business incubation centres; and
- formal mentoring services.

These consultations have been supplemented by desk research.

## 1.4 Structure of the report

The remainder of the report is structured as follows:

- [Section 2](#) outlines the extent of business mentoring and wider business support in the Life Sciences as well as the extent of the demand for the services;
- [Section 3](#) provides a commentary on the gaps in the provision of mentoring services in the Life Sciences in Scotland including the wider issues in the industry contributing to these gaps;
- [Section 4](#) presents our conclusions and recommendations; and
- the [Appendix](#) outlines the organisations consulted and how they contribute to the mentoring landscape.

## 2. Activity and Demand

### 2.1 Extent of Activity

Our research shows that there is a wide variety of types of business assistance activity into which mentoring could fall. Mentoring as a formalised role is rare, particularly if we follow a strict definition such as:

*“Mentoring is the long term passing on of support, guidance and advice...a form of apprenticeship whereby an inexperienced learner learns the tricks of the trade from an experienced colleague.”* Chartered Institute of Professional Development

Individuals are much more likely to seek assistance on specific issues or problems from a wide variety of people rather than relying upon a single point of contact or mentor. Activity ranges from mentoring support in the start-up phase, although none of these specifically focussed in the life sciences, to informal access to networks with both general business and life science expertise. Individuals may access these networks proactively or through referral. These networks are not defined and are typically the contacts of the executives who are active in the businesses or the business support organisations own lists of members and participants.

The vast majority of the activity is informal, by word of mouth and not codified or defined to any extent. The exceptions being when mentors are appointed in start-up assistance roles in Royal Society of Edinburgh (RSE) Enterprise Fellowships, Entrepreneurial Scotland (Saltire Fellow), Business Mentoring Scotland or Strath 100 assistance roles. In these cases there are managed processes where a successful candidate is matched with a pre-identified mentor. This does not necessarily cement the relationship from the first instance but it does go some way to creating an expectation on both sides. All of these are general business mentoring programmes, with only a small percentage of mentees from the life sciences.

As companies or individuals mature in experience the assistance they seek is less easily identified, but it tends to revolve around business building issues such as fundraising. Assistance in more specialist areas such as intellectual property, regulatory or market access tends to move rapidly beyond advice to more professional contracted or recruited support.

It is notable that very few of the interviewees mentioned higher level business skills such as leadership and strategic planning. This is in contrast with activities in more advanced communities such as Cambridge or London, where networking organisations (such as One Nucleus) have used business leadership activity as a primary route to encourage higher level mentoring. The commentary was that Scottish firms were more concerned about day-to-day issues and less on the long-term.

### 2.1.1 Scottish Enterprise

The Life Science sector has been a long standing and significant part of Scottish Enterprise's activity. As such it is likely that firms access a wide range of support across SE's programmes and associated tools. In order to fulfil the scope of this commission we have particularly concentrated on the most "mentoring like" of SEs activities and the ones in which the life science sector has a significant proportion of the activity. As a result we have concentrated on the activities of the High Growth team, Global Scots, medium term expert support, and the support delivered to firms by Business mentoring Scotland, an activity delivered by the Chambers of Commerce but supported by SE.

There were two other, now defunct programmes offered by SE, the Life Sciences Business Advisory Service and Medical Devices in Scotland. Neither of these programmes specifically offered long term mentoring services, instead providing *ad hoc* advice to Life Sciences companies. Both programmes were discontinued due to issues in identifying clear outcomes to justify continued funding.

#### High Growth activity

Life science firms make up around 30-35% of the High Growth start up units project portfolio. Firms entering "high growth" status usually enter a relationship of up to 2 years with the High Growth team and new companies within this SE programme must have the potential to achieve high growth (£5m) or high investment (£10m) within 5 years with support typically applied to a specific business issue. In the case of Life Science businesses this is usually the enhancement of investor readiness and the achievement of particular investment goals. It is understood that in the early stages of these businesses, sales can be a long way off.

The High Growth team see their role as more advisory than mentoring. Their support is applied in the form of an expert advisor which are formally contracted relationships with advisors being recruited through tendered frameworks. The advisor delivers a specific plan with predetermined objectives.

On completion of the programme the company exits to Account Management within the SE network, subsequently the SE account manager's role is to bring appropriate assistance to bear depending on the growth aspirations and capabilities of the company.

Advisors are recruited on a cross sector basis, taking on an interim management role, though the team did comment that Life Science entrepreneurs would be at a premium. The activities of the High Growth team are currently under review and some changes in operational delivery are possible.

High Growth Spinout forms a significant part of the start-up pipeline, its focus is to help to commercialise (via a new firm) Scottish university research. Advisors are assigned in a similar manner to assist in the commercial outcomes.

The newly developed "Start Global" approach looks to be a feeder for High Growth Start Up providing a 3-4 month programme of joint master classes, advice and support for a new entrepreneur with cohorts of about 5-8. So far, not all have reached high growth status and are referred to other support in the network.

## Business Mentoring Scotland

This is a long standing SE supported programme available to all businesses across the sectors which aim to grow by a minimum of £100,000 sales over 3 years, not just for account managed companies. The programme is managed by the Scottish Chamber of Commerce in partnership with Scottish Enterprise using a pool of mentors including those with small number of specialist Life Science backgrounds. Mentors provide their services free of charge and three types of mentoring available:

- One to one - typically for a couple of hours, for up to 1 year;
- Group - a group of like-minded businesses and the mentor; and
- 'Take three' - up to three members of the management team or three business leaders.

Since 2000, almost 7,000 businesses have been supported with over 800 businesses or social enterprises receiving support each year, however there are few Life Science firms or mentors active.

Business mentoring's aim is to provide complementary support to other programmes. Getting a good match between mentor and company is key, Business Mentoring make the introductions but it is up to the firm to build the relationship.

### Medium term expert support

Medium term expert support, although not a mentoring programme, does provide "mentoring like" services. It provides 30% funding for an external consultant's salary for three to twelve months, and is available to account managed companies or other companies if they have a compelling business proposition.

Support is available in a variety of different areas, including those that are not generally available or promoted through Life Science support networks. This includes strategy development, ICT, product development, leadership and organisational management, domestic and international market development and business improvement.

### GlobalScot

GlobalScot is a well-established SE programme which partners mentors and advisors to Scottish companies across all Scottish key sectors, including Life Sciences. This is done on an *ad hoc* basis, but GlobalScot mentors are offered to companies through formal programmes such as SE's 'Start Global' and the Scottish EDGE, however they can be accessed as part of or separately from, any SE or SDI programme.

There are 80 LS specific GlobalScots (66 international 14 UK). There has been a process in recent times to validate a much broader list to more closely match to the needs of Scottish firms and ensure that participants are as active as possible. GlobalScots are typically in senior positions with substantial experience and are invited to participate by the First Minister. There is broad experience across human health care in pharma services medtech and manufacture, however, the team do promote cross sectoral relationships that can facilitate broader knowledge or broader business skills.

GlobalScots provide assistance on a pro bono basis. They could offer assistance from reviews of business or market strategy to regulatory advice. Requests to access overseas fundraising or access to operational experience by internal referral are typical. They primarily provide a wealth of external expertise and a sounding board for Scottish firms, but it is dependent on the particular company need. Typically requests from Scottish firms are well focused and detailed. Should the network be unable to find a specific match in existing GlobalScots they do look to broader cross sectoral expertise or referrals from closer matched GlobalScots. Once the interaction is underway the team will tend to step back.

Much of the activity is centred on elements of access to new markets. The support can range from regulatory themes to creating a physical presence. But much of the support is around markets, route maps and competition. The best relationships are long standing and broad and companies and GlobalScots can self-refer through the GlobalScot web site or seek the advice of the team.

The GlobalScot community has been created to support the current needs of Scottish firms. There could be gaps in the future as the emerging med tech, regenerative medicine or specialist manufacture.

The current group of GlobalScots are generally very active and responsive in their support. It has been a strategic choice to work with the most active and well matched to the Scottish community, however the GlobalScot team do aspire to growth the network in both scale and quality.

## 2.1.2 Membership Organisations

We discussed mentoring activity with organisations with both Scotland only remits and wider UK activity. There are very few organisations active in Scotland offering specific mentoring support to established firms. Although none of the organisations provided direct mentoring services themselves, there are three ways in which these organisations provide services related to mentoring:

- operating specific support programmes that address common issues and have significant elements of mentoring within them, allowing the participant to learn rather than supplying business consultancy aimed at a specific problem, e.g. business plan building and investor workshops, accessing NHS Scotland and accessing medicines approval agencies such as SMC and NICE;

- membership organisations regularly organise events in order to bring people together who would not ordinarily mix, facilitating the striking up of collaborations and mentoring relationships; and
- signposting interested parties towards relevant individuals/organisations who can provide mentoring or business advice.

It should also be considered that membership organisations provide access to the majority of their activities to their members. There are cases where exclusion takes place; for example the NHS access programme coordinated by SLA is available to all Scottish firms (it is sponsored by Scottish Government) while its business planning assistance is only available to members. However, this is less relevant in some cases, for example, KTN provide membership for free as they are sponsored by UK Government, however, the advice provided by the KTN is less bespoke than that provided by other membership organisations such as SLA.

Other membership organisations (particularly national ones) operate in more policy focused (such as product pricing and market access) areas which may be of limited impact in emerging companies. This means that membership is biased towards larger firms and smaller firms can miss out on the network benefits the organisation could provide.

Organisations with networking remits (One Nucleus, London First and to an extent Biocity) had interest in higher level mentoring activity such as leadership, commenting that this was a useful route to bring non-Life Science expertise into the community.

### 2.1.3 Knowledge Exchange

Mentoring is not a fundamental role of knowledge exchange organisations such as Interface. Their focus is to establish collaborative research relationships between Scottish research institutions and the commercial base. However, there is good evidence (from independent assessment of Interface) that relationships are created with opinion leaders in the academic community as a product of collaborative or IP related discussions. It appears that communication persists beyond initial introductions and although it is not formally a scientific advisory role, there are benefits that accrue from discussions. Interface believe that around 45% remain in contact with their academic links, however Life Sciences constitute only 10% of Interface activity.

## 2.1.4 Private Investment

Private Angel investment groups, as well as providing finance, also provide elements of mentoring support. However, none of the consulted firms regarded what they do as mentoring. Instead they offer an informal network of experts in various fields which investees can tap into when the need arises.

The areas in which they tend to offer advice are with regards to business planning, finance and accounting, with more specialist advice depending upon whether the investor has the relevant expertise within their contact network. A key service provided is acting as non-executive directors and helping the company form an effective management team, as often Life Sciences companies will be strong on the technology and product development side, but lack business and financial expertise.

A small number of specific mentors have arisen from successful cycles of investment and they participate in more pro bono company support. This is a very small group who tend to work with SLA and Enterprise Fellowship participants. There were a number of comments (particularly from Networking groups and membership organisations) that those having completed the “Cycle of Success” were the most valuable mentors. The expertise sought is both in fundraising and the creation of successful exits.

## 2.1.5 Life Science Business Incubation

Both BioCity and BioQuarter activities show the most obvious linkages to defined business assistance and, potentially, mentoring. Though both have property elements to their offering they appear to make a substantial effort to support new and tenant businesses which may resolve into new tenants or, in the case of BioCity, into investment opportunities. Access to networks is key (the focus is human therapeutics and diagnostics primarily). The majority of the activity in BioQuarter is focused on University of Edinburgh spinouts and they seem to work well with in house entrepreneurial activity. BioCity’s remit is wider.

Both give access to networks for assistance, have an advisory role to target issues, sign post and have public events which discuss specific business issues and stimulate discussion. BioCity has a number of corporate partners on-site who can help tenants and non-tenants, both in a consultancy capacity and by participating in



events. Tenants include lawyers, intellectual property experts, chartered accountants, lab equipment suppliers and public relations firms.

In recent months BioCity has instigated delivery of the Pathway Accelerator Programme which has been rolled out in the HIE area to some initial success and Life Science participation. It links coaching and support with property access and a defined network of up to 50 experts, although not all of these experts will perform a mentoring role. The pilot of the programme in The Highlands has indicated that recruitment and preparation of an expert team is a valuable resource and that it encourages participation in the programme from both companies and potential advisors.

It is early days for the central belt roll out of the programme but the methodology appears attractive to early and new firms and BioCity intends to access its UK wide networks to assist the Life Science specific projects it is now targeting. It feels that this will greatly enhance local activity.

## 2.1.6 Public Sector

Generic business support organisations appear to have little interaction with the Life Science sector. Though they offer mentoring as a specific service few, if any, Life Science firms would access their services, although when they do, Life Science firms would tend to access High Growth programmes through Proof of Concept like support, Smart funding or relationships with SE.

The High Growth team's programmes look to develop capacity within the firms rather than addressing specific issues, providing support for a senior manager or director who becomes part of the staff. Of course a key part of their roles can be developing novel strategies, re-examination of business plans, a focus on fundraising and protection of intellectual assets.

Life Science firms have also participated in Tech Start Up support which allows a condensed opportunity for peer-to-peer learning and access to external expertise.

A similar approach is taken in the international space where SDI will assist in recruitment of a manager for hire to facilitate market access with the bias in favour of recruitment of the individual rather than accessing consultancy or advice. More general support in market and with access to networks is available and SDI offices in the field can help to make introductions and provide insight into markets.

The managers that fulfil this role are part of framework agreements so these programmes are not generally available to interested mentors. However, informal networking is promoted.

### 2.1.7 Mentoring Services

There were four organisations surveyed that provided, or planned to provide mentoring services, although none were specifically focussed on the Life Sciences. These were Entrepreneurial Scotland (previously known as the Saltire Foundation), Business Mentoring Scotland, the Royal Society of Edinburgh (RSE) and Strath 100.

All of the organisations see their role as matchmaking, having a network of potential mentors and receiving applications from those seeking mentorship. RSE, Strath 100 and Entrepreneurial Scotland source mentors through people previously associated with them. For RSE this is mainly University of Edinburgh alumni, while Strath 100 almost exclusively uses University of Strathclyde alumni, and Entrepreneurial Scotland will utilise its network of people supported through its global internship and fellowship programme. Business Mentoring Scotland doesn't draw its mentors from any particular source, relying upon wider formal and informal networks.

After the matchmaking process, most of these organisations take a hands off role and leave the mentor and mentee to cement their relationship, although the structure and number of meetings differs across programmes. The RSE fellowship offers a much more in depth level of support, with mentees continuing to work in an academic environment. The key element to the success of a mentoring relationship was generally held to be the personal relationship between the mentor and mentee. Those with a poor relationship tended not to make continued contact regardless of whether there was continued mutual benefit to the mentorship.

None of these mentoring services has particularly wide experience in supporting Life Sciences businesses, with these only making up a small percentage of clients. It was noted that there was often some difficulty in finding mentors with expertise in the Life Sciences, particularly around regulation and accessing customers.

## 2.2 Evidence of Demand

There are countless examples of individuals and firms seeking specialist help and advice, but few would show evidence of seeking mentoring. It is common for firms to

access broad business support and Scotland has a well-established support infrastructure to assist start-ups and business growth, so much so that we have identified a concern about overlap in activities and services and commentary that there is a significant amount of “noise” in the support market place.

Individuals and firms are more likely to ask for advice on particular issues, perhaps as a consequence of engagement with a business support group or a membership organisation. The typical response is referral to a network contact. These referrals are not formal and the progress and follow-up of any referral is the responsibility of the firms themselves. It is difficult to identify how deep and successful these referrals are, but in discussion with business advisors it would seem that the majority of the support required is based on a single issue and the relationship is short lived.

Trade bodies, support organisations and investors appear to make their networks and contacts freely available and will refer, but they do not track the outcomes.

Our consultations suggest it is rare for companies or individuals to seek mentoring support, however, they do seek support on specific issues or challenges faced. So the interaction with the advisor is typically short lived. This advice can be supported through some form of established organisation or a subsidy for consultancy, or simply a direct contact and discussion with an “expert” in the wider community

The areas of advice commonly sought are business planning, fundraising, market access and regulatory issues. Advice on long term strategy or leadership issues is much less common; indeed, these issues are rarely promoted by support organisations and networks in the Scottish community, with the exception of SEs medium term expert support product which provides part-funded consultancy support on these issues.

Mentoring activity appears to be focused at the early stage start up programmes from academia. For example, Enterprise Fellowships have a formalised mentoring approach to assist the individual in business start-up, IP negotiation and initial fundraising as well as providing lab space at a partner university to allow product development. It appears these relationships can be very long and extend beyond the life of the Fellowship. The mentoring support through Entrepreneurial Scotland is currently in the pilot stage and they indicate that they have high levels of demand for mentoring services in general, although at this stage they were unsure how that demand extends to the Life Sciences.

In our consultations, we were able to establish that specialist advice and mentoring groups had close contact with the community. These focal points are well networked within the commercial and academic communities and it is clear that they are more connected than the companies and individuals that they seek to assist. We believe that we can be confident, that should a need be identified, these organisations will look to an informal referral, suggest a route to assistance or apply a more specific tool if that was appropriate.

However we are not as confident those with less exposure to specialist support or account managers in the enterprise networks are as well connected to networks and potential mentors. This lack of exposure may be balanced by the multiple contact points available to individuals and firms and the relatively small size of the community.

## 3. Weaknesses and Gaps in Provision

### 3.1 Supply of Mentors

Consultees have suggested that the supply of experienced mentors is low. A number of comments suggest that the business infrastructure in Scotland has yet to create sufficient serial entrepreneurs and experienced senior managers (particularly with small company experience) who would have the time and the philanthropic aspirations to help others. In contrast, others say there is a significant amount of experience in Scotland, but this experience is typically within large established international firms and may not have a good match to the bulk of needs shown by the Scottish community. They did go on to stress that this knowledge was invaluable but less generally in demand. Similarly they commented that the international Global Scot network was substantial but lacked entrepreneurs experienced in UK market conditions. Those contacts were useful and valued but were perhaps only used as a sounding board on rare occasions where need and experience were well-matched.

There was a distinct contrast between Scotland and Cambridge which was viewed as having a much more highly developed interaction between firms and individuals. There is a greater number and quality of experienced entrepreneurs and managers so mentoring or quality advice was much easier to identify. Networking is at a high value adding level (as it is possible to interact with experienced individuals) and support organisations have for many years looked to engage more philanthropic

elements with the community. Organisations active in Cambridge (One Nucleus) suggested that they did not facilitate mentoring directly but looked to position business leaders who might be able to assist others. The focus of their activity was in broader business leadership rather than specific day-to-day issues.

It is significant that the mentors are empowered by their organisations to get directly involved. The individuals involved commented that there were benefits to be had from advisor and mentoring roles. Senior managers used mentoring activities as part of their personal development and even suggested that at a leadership level great benefit was available when they mentored firms outwith their own sector. This allowed them to focus on the leadership issues rather than business specific issues.

## 3.2 Accessing Customers

There has been some commentary that business development capacity in smaller Scottish firms was somewhat weak. Mentoring could have a role in bolstering this activity, magnifying the company's own networks via referral. From what we can determine this is a rare occurrence. Larger firms remain closed in sales terms from the smaller firms based in Scotland. It was suggested that this may be due to international decision-making or a reluctance on the part of the Scottish based firm to show any perceived conflict of interest in preferring a potential Scottish supplier of partner.

The major customers for Life Sciences start-ups tend to be either the NHS, large pharmaceutical companies or exporting into foreign markets. Each of these routes are fraught with difficulty and require significant expertise to negotiate. This was identified as a key area where mentoring would be particularly helpful. However, there was perceived to be a lack of people experienced in these issues to act as mentors and that since the pharmaceutical industry is fast changing, experience can quickly become outdated for mentors not actively engaged in the industry, such as retired experts. Support organisations with a sales focus commented that there was a lack of medium level management within Scottish firms, those individuals that carry out the day to day work. Informed advice was available but the experience to put actions into place was more lacking. This was expressed as a lack of up and coming middle managers in business development working in smaller Scottish firms.

### 3.3 From Start-up to High Growth

The start-up phase is quite well served with formal mentor support. Fellowship programmes have a dedicated mentoring and advisory structure and the step to High Growth activity and international market access is served through capacity building programmes, typically supported by the enterprise networks.

It would appear that there is a role for expert but informal advice for established but still relatively undeveloped firms, particularly in the broader development of their strategy, fundraising and key regulatory and IP stages. Moreover, the smaller firms are concentrated on shorter-term problem solving activity and do not look at leadership issues. Comment was made that the leadership element was a key feature of effective fundraising and could be easily overlooked in day-to-day activities.

### 3.4 Accessing Capital

Angel investment groups, as well as providing finance, also provide elements of mentoring support. However, none of the consulted firms regarded what they do as mentoring, instead offering an informal network of experts in various fields that investees can tap into when the need arises. A number of support organisations saw great value in advising business on the construction and presentation of their business plan and the need for independent advice at the various levels of fundraising. They commented that angels while providing great insight, had elements of their own investor interest at heart. This can be a positive as it gives the investor an incentive to see the business succeed, but can be a negative when investor and investee priorities become misaligned.

However, Life Sciences businesses often find it difficult to make the step up from Angel funding to higher levels of investment. This is due to the underdeveloped venture capital market in Scotland, particularly in the Life Sciences where the vast majority of high level funding is spent in and around London.

Trade associations such as SLA provide targeted one-to-one workshop support for business plan development and assessment. This support appears well liked but is delivered by a restricted number of expert advisors.

## 4. Conclusions and Recommendations

We see only a few isolated examples of mentoring activity in the Scottish Life Science sector. Formalised (or even informal) long-term relationships between mentors and inexperienced individuals or firms are rare, and are typically restricted to entrepreneurial start-up activities and programmes where a significant degree of match-making to a defined mentor is a key part of the programme. However, none of these programmes had a particular focus on the Life Sciences. Mentors are typically experienced entrepreneurs.

Mentoring and advisory relationships tend to be informal in nature and created informally, predominantly through a referral in the first instance. Whilst the specific problems facing the company and the expertise of the mentor drive the matchmaking process, the gelling of the individuals appears to be the key to the initial and on-going success of the relationship. The mentored firm or individual will typically drive the process, with individuals who have substantial mentoring experience reporting that mentors have to be prepared to take a back seat and expect little in return “beyond feeling good about helping out”.

The broad use of networks and networking is common in the sector, with referrals to assist in problem solving, giving advice or insights being frequent. The levels of activity, outcomes or success of these referrals are not recorded or monitored, so it is difficult to say how effective this method is, but they are an important way in which the community operates. The wider business support community looks to build and utilise its networks as much as it can, although many of these networks are Scotland-centric and there are suggestions that Scottish networks do not extend internationally as much as they could or should.

Experience (particularly successful entrepreneurship) is at a premium and the possibility to access knowledge easily would be a positive step forward. The business support community acts in many ways as a “clearing house” which looks to assist firms and individuals identify needs, problems or opportunities. This advice is typically informal and has an emphasis on thematic areas such as business start-up issues, fund raising, overall business strategy and planning, and the identification of intellectual property or regulatory issues. Advice tends to take the project to the point of identifying the problem and potential solutions; beyond that point, progress is

generally facilitated by the recruitment of professional staff or the commercial engagement of expert assistance.

As well as a lack of supply of experienced mentors, there was regarded to be a lack of demand in Life Sciences firms for mentoring. Instead, they were more interested in short term, *ad hoc* advice on specific problems from a variety of sources. However, as this study only consulted with mentoring suppliers, it is difficult to draw any strong conclusions as to the extent of demand; a further study of Life Science firms would be needed for an accurate assessment.

Many of the enterprise network programmes build capacity in firms through subsidising management experience. Though not mentoring, it does add substantially to firm's capacity particularly in areas such as businesses development sales and exporting. They also use networks to assist in business growth, but the prime focus is capacity building.

Keeping mentoring advice informal was predominately seen as a plus point. The community shied away from organised matchmaking, the exception being Enterprise Fellowship type approaches, instead favouring greater involvement and openness from experienced members of the community. Consultees generally believed engagement and openness was key and business support organisations were keen to provide referrals (as long as the referred firm was engaged with positively and a useful outcome was likely) and would take the opportunity to ensure that neither the advisor/mentors nor the project time was wasted by lack of preparation or mismatch in need and experience. There are a number of projects such as the Pathfinder Accelerator Programme which have used targeted networks well, but would step out of their defined set of network participants should the opportunity arise.

## Recommendations

Our recommendations look to address three main areas of concern. Firstly, the general approach to providing informal business advice support or more developed mentoring; secondly, the communication failures which prevent interaction; and finally, straightforward practical tools that would complement existing activities.

At this stage we do not recommend the creation of an additional mentoring service or network due to a lack of evidence of demand. Feedback from consultees suggest that demand for mentoring services is weak and that there is a preference for the



use of *ad hoc*, informal networks when support is required. However, we have little evidence whether this is the case or if there is a level of latent demand, suppressed by the lack of availability of these services. Further study with Life Sciences firms would be necessary to determine whether there is sufficient demand for a new service.

General approach:

- keep an emphasis on informality – encourage interaction but led by project need and approach;
- consider ways to attract international Life Sciences experts and serial entrepreneurs to become active in Scotland – this will increase the pool of available mentor/advisors in the short term; and
- try to ensure a good match between potential mentors/advisors and the needs of the Scottish company base – this will help ensure that companies get the advice and support they need.

Addressing communication failures:

- encourage engagement of experienced and senior management in the Scottish community – share contacts across networking groups;
- encouraging mentor/advisors to be proactive in their engagement is important – stimulating active participation in networking events would be an important way to achieve;
- develop a focus on leadership beyond basic problem solving;
- encourage a greater focus on issues surrounding market access including internationalisation and exporting; and
- stimulate engagement in workshops, tutorials and network focused programmes – these provide a platform to illustrate expertise but also allow the mentor/advisor to be open and willing to support.

Complementing existing activities:

- create stronger links with UK and wider advisor networks – particularly One Nucleus and BioCity to bring a wider set of experienced advisors and mentors than is currently available in Scotland; and
- work with the identified formal networking and mentoring organisations to encourage a better understanding of current and future issues faced by Life Sciences companies and to add to their network of Life Sciences experts.

## Appendix A: Consulted Organisations

This appendix presents a list of people and organisations consulted as part of this research. Also listed is the extent of mentoring, or mentoring related services that they provide.

Organisation	Organisation Type	Mentoring Activities
Barwell	Angel Investment Group	Investment, supply of non-exec directors and ad-hoc advice based on informal networks.
Grampian Biopartners	Angel Investment Group	Investment but principles have defined mentoring roles
Association of British Healthcare Industries	Membership Organisation	No formal mentoring. Provision of advice and signposting.
Royal Society of Edinburgh – Enterprise Fellowships	Academic Society	Formal mentoring is part of the Fellowship which also includes a year's salary at an academic institution.
Biocity/HIE Pathfinder Accelerator	Business support programme	Business support with network resource
Aurora Private Equity	Angel Investment Group	No formal mentoring, will signpost and draw on networks as needed.
Business Mentoring Scotland	Mentoring support	Formal matchmaking of high growth potential businesses with mentors
Biocity Scotland	Incubation Centre	No formal mentoring. Provide facilities and equipment as well as learning and networking workshops.
Scottish Institute for Enterprise	Developing Entrepreneurship	Entrepreneurship within graduate community
SE High Growth Team	Business Building	Management resourcing to assist business building. Broad business support
Scottish Development International	International Support	Access to international networks and market support. Enhanced by management subsidy
Scottish Life Science Association	Membership Organisation	Support for members in business planning networking and broader access to NHS
Archangel	Angel Investment Group	Closely involved with investees, but would not describe as mentoring. Instead relies on larger network of people
Strath 100	Developing Entrepreneurship	Formal mentoring matchmaking service but limited to Strathclyde University students and alumni

Organisation	Organisation Type	Mentoring Activities
Discovery investment fund	Angel Investment Group	No mentoring. Take on non-exec role after investment and have network of investors to provide ad-hoc support
BioQuarter	Incubation Centre	Facilities and accommodation to facilitate Edinburgh based spinouts. Networking and general business support
Business Gateway	Business support	No mentoring. Will refer on those suitable.
Association of the British Pharmaceutical Industry Scotland	Membership Organisation	No formal mentoring, members' major UK/International firms networking is encouraged. Focus on policy and pricing
Interface	Knowledge Transfer	Establish lasting informal linkages with research and academic community
Entrepreneurial Scotland	Developing Entrepreneurship	Formal mentoring process in pilot stage.
KTN	Knowledge exchange	No formal mentoring. Provide information and advice and regularly host events.
One Nucleus	Membership Organisation	Membership organisation promoting networking and leadership issues. Active primarily in SE UK
GlobalScot	Business Support Network	Provision of mentoring support through network of GlobalScots, with a focus on market access

## Appendix B: List of Acronyms used

Acronym	Definition
KTN	Knowledge Transfer Network
NICE	National Institute for Health and Care Excellence
LISAB	Scottish Life Sciences Advisory Board
RSE	Royal Society of Edinburgh
SDI	Scottish Development International
SLA	Scottish Life Science Association
SMC	Scottish Medicines Consortium