

Looking out for a hero!

An Insider's Insight into Key Opinion Leader Identification and Profiling

We all need heroes - people who can champion our cause, helping the world to understand why we do the things we do and get everyone behind us. In the field of medicine these individuals are identified as key opinion or thought leaders and they are often early adopters of new treatments or procedures. However, the healthcare landscape is changing and payers, health economists, government affairs experts and those in patient advocacy are among the new stakeholders that need to be considered alongside top tier clinicians.

What do you need to know to ensure that your next search for 'thought leaders' is conducted in an appropriate and considered fashion capable of yielding candidates who are best placed to help you achieve your objectives? We offer some insights from the Niche team, who have been identifying and profiling thought leaders for the pharmaceutical industry since 1998.

Before you start

- Establish a clear understanding of the operating environment so that you can define the scope of your challenge: optimal therapy area reach, global/local requirements, competitor landscape, unmet needs and speciality representation requirements for your KOL population.
- Describe the profile of the ideal candidate and the thresholds of qualification for real life KOL nominees. Identify characteristics that will be essential for the KOLs to achieve your objectives.
- List opportunities for KOL engagement in supporting activities that will bring your objectives to life. These might include peer-to-peer engagement, thought leadership, and writing of scientific articles as well as involvement in guideline development and patient advocacy activities. Knowing this will help you select the best candidates.

Prepare to succeed

- Adopt an objective approach to KOL identification. Start by rejecting incumbent advocates and existing in-house lists of names as well as recognised experts and 'big names'.
- Use a variety of information resources to build a comprehensive list of potential candidates.
- Define targets for your champions in the form of S.M.A.R.T. objectives. List your profiling parameters in terms of their potential impact on these objectives and develop a scoring scale for each parameter.
- Engage with a variety of online resources to profile your candidates and record data on each in your spreadsheet. Consider reducing large lists with a first pass or triage exercise.
- Use a scoring system to rank and identify your perfect candidates.

Key Insights

The pharmaceutical industry has long worked with key opinion leaders (KOLs) to raise the medical community's awareness of trends in research and development, clinical trial outcomes and new treatment options and paradigms. Promoting adoption through KOL-facilitated peer-to-peer dissemination of key data and shared understanding has become integral to the launch of new medicines. A science in itself, the process of identification and engagement of effective champions is coming under increasing scrutiny in a post-Sunshine Act environment.

Bottom line - when identifying KOLs the quality of your candidates will be reflected in how well they are able to help you achieve your objectives. Selecting the right KOLs isn't just about effort, it is also about applying a considered and objective approach to the first step on your journey: candidate identification and profiling. Define targets for your champions in the form of S.M.A.R.T. objectives. List your profiling parameters in terms of their potential impact on these objectives and develop a scoring scale to weight each parameter.

It isn't always necessary to boil the oceans dry to find ideal candidates. An ill-considered strategy designed to simply trawl through hundreds or thousands of names will most likely deliver a population of clones lacking the required flexibility to deal with day-to-day changes in your operational environment.



Set specific objectives – define how much? how often?



Design appropriate metrics that you can use to measure progress?



Establish attainable and practical goals.



Map delivery on a realistic timeline.



Establish a time frame and milestones for delivery.

KOL HISTORY

The term key opinion leader (more frequently termed KOL) originates from studies of influence reported in the 1940s that were sceptical of how much mass media could shape the public's view. Investigators established that in some areas people would change their views and preferences under the influence of certain trusted individuals in their networks - or opinion leaders [1].

The theory of influence was extended to medicine in the 1950s and included an early study of its efficacy in a project sponsored by Pfizer [2]. Interestingly, reanalysis of the original Pfizer study data in 2001 suggested that the physicians in the study were NOT influenced by local opinion leaders [3].

Although there is no doubt of the present day value of KOLs to the pharmaceutical industry, it appears, somewhat ironically, that this 'successful' marketing model was built on a misunderstanding.

The Key Opinion Leader Identification and Profiling Process (KOLIP-P)

- How do you convert a list of candidates into a community of KOLs that retains the ability, opportunity and commitment to help you achieve your objectives?
- How do you ensure that your identified candidates will work synergistically, express a broad range of abilities and influence?
- Are there sufficient candidates within your generated list who will be willing to convert from 'names' to advocates or champions?
- How do you achieve all this in an open and objective manner while ensuring that your partners remain relevant over time?

You can't make a silk purse out of a sow's ear and the secret of KOL success lies in the quality of your starting product - the list of candidates from which you will select your KOLs. We call our approach KOLIP-P and it can save hours of time searching through thousands of names by following simple steps that will ensure your initial candidate list is 'fit for purpose'. Our in-house KOLIP-P standard operating procedure can easily be converted into your KOL selection policy that you can use to demonstrate transparency and objectivity in your KOL selection process while documenting your efforts to counter selection bias.

"Developing KOL relationships may, at times, be challenging and time-consuming, but they can be invaluable to both KOLs and pharma."

Marian East, Director of MedSense*

"If you want a sustainable business you cannot make the right decisions without understanding your external environment – and the only way to that is by talking to people."

Judith Luker, Pfizer UK*

* Quotes provided for an article published in Pharmafocus, July 2008

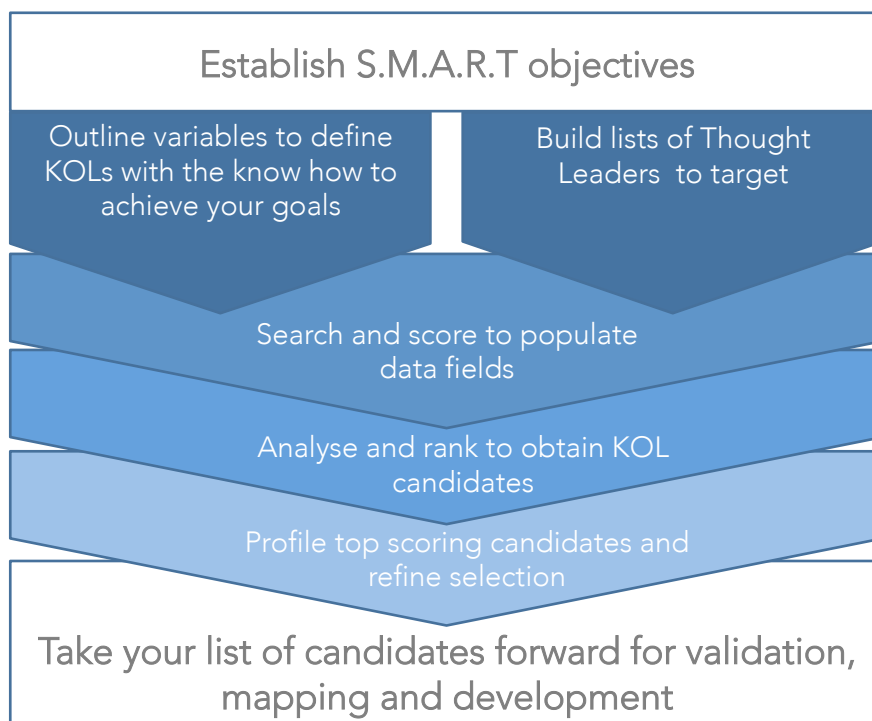


Figure 1: Key stages to identify, profile and develop Thought Leaders into successful KOLs

Many methods have been proposed for building candidate lists but all tend to rely heavily on searches of the scientific literature. Searches alone however do not provide a reliable insight into the ability of an individual to influence others. For example, prolific authors appear not to wield as much influence as you might expect. Similarly, selection guided by your in-field sales team are prone to bias and the associated lack of transparency of the selection process is in conflict with current regulatory requirements.

Our approach contrasts the industry tendency to roll out 'the usual crew' irrespective of the event or your objectives. It is well-recognised that certain thought leaders are often over-exposed, have fingers in every pie and, most likely, don't have the time or energy to provide the commitment needed to serve as an effective KOL. Audiences know who the industry hacks are and do not necessarily engage or empathise with the messages they endorse.

Write a plan

Always employ a systematic approach to the identification, profiling and mapping of candidates. Produce a record of your methodology (see an example of a simple method in Appendix 1). This not only helps you uncover the best candidates for your needs but also allows you to re-run your selection process at a later date using different qualification thresholds or weighting. In addition, it simplifies re-running your selection as the landscape changes. It will provide you with the necessary evidence to demonstrate due diligence, allowing anyone to review and assess your selection process.

Step 1: Define your variables: Landscape, Objectives, Profile and Scale

The power of modern computers and the near-omnipotent nature of the internet create opportunities for anyone looking to generate lists of potential KOL names. However, you need to consider how to convert the list into high potential candidates in a post-Sunshine Act, post GDPR environment.

Field of study: What is the therapeutic field in which you work? Can it be broken down into different specialities?

Expertise: What 'additional' expertise do you need represented within your KOL team to facilitate delivery of your objectives: experience of competitor landscape, unmet needs, level of pharmacologic knowledge, population modelling, health economists and/or patient advocates?

What is the right mix of candidates to deliver your objectives?

Future: Build for the future at the outset. How do you see the landscape changing with time and how will this reflect on your requirements – follow the old adage – measure twice, cut once.

What do you need your champions to achieve in supporting your future projects?

Define what you would like in the form of S.M.A.R.T. derived objectives. KOLs are often involved in professional education, clinical research advisory boards and delivering strategic communications as well as serving on medical policy and guideline committees. Will these help promote your activities?

Think of the changing face of influence and the scientific literature's loss of supremacy in terms of medical communication [4]. The planned landscape and activities will define the profile of the ideal candidate. Identify opportunities for KOLs to engage and support activities that will bring your objectives to life.

Landscape

Objective

Establish clear definitions for each of the aspects that determine your operating environment and are likely to impact on the success of your endeavours and/or will determine the scope of the project. This can best be summarised by the acronym LOPS

Scope

Profile

How many KOLs do you need to implement your plans and achieve your objectives? What geographical area are you planning to cover: global, national or local? Will your requirements change with time?

What time period does your current initiative cover? Plan for the full lifecycle of your project or programme. Is the therapy area well supplied with candidates? To prevent any unforeseen delay or recruitment issues plan to identify around two to three times the number of KOLs you estimate you will need.

The pool of researchers will be smaller for rarer diseases and disorders and therefore, fewer candidates are likely to be available than better served therapy areas – it may also mean that fewer will be required to influence opinion within the field.

What sort of 'channels' do you expect your KOLs to work in – what mix of media skills will they need?

Knowing the landscape and objectives will give you an insight into the key attributes that your ideal KOL will embody. A list of key characteristics you may want to consider and/or avoid when identifying potential candidates is provided below.

How you prioritise each of these attributes will depend on your specific challenge:

- Clinical trial investigators and authors of journal articles and treatment guidelines
- High therapy area profile
- Editorial board members and officers of professional associations
- Positions of responsibility in hospital and university departments
- Speakers at conventions and symposia
- Excellent communicators, accomplished networkers with charisma... the 'X' factor!
- National, international or local presence
- Patient advocate with high social media presence

Step 2: Search and score

The outputs you derive from Step 1 will inform you on how to refine the type of characteristics best describing the KOL you are looking for and the sort of data you should be collecting. Describing a structured search strategy before you start will save you time later by providing a clear delivery pathway and minimising duplication of searches strategies. It will also make the process reproducible (if you want to retrace your steps at a later date) and provide the necessary evidence that you have taken an objective approach to candidate selection.

Data collection should be straightforward, although it can be time-consuming as it is likely you will need to visit multiple information sources to obtain a thorough set of data. In this age of sophisticated internet search engines and transparency in professional interests there is a wealth of information about potential candidates available to those with the time and inclination to look for it. You are not just collecting a list of names. Before you start searching for information set a target with a definable endpoint and/or delivery timeline at which searching stops and you review your progress. Make a list of the information sources you expect to search. For example:

Sources:

Identify potential data sources for your key information. Where possible list the search terms you expect to use. Data sources may include:

- Clinical trials databases
- Publication databases
- Journals that cover the therapy area/books
- Learned societies: membership, leadership, awards
- Congress meetings: speakers/organising committees
- Centres of excellence/University/hospital websites
- Patient advocacy sites /Guideline initiative groups
- Regulatory/purchasing groups

Characteristics:

- Involvement in defining medical practice and teaching: Sources might include membership of learned societies, teaching posts, editorial board membership, congress/conference board membership and authorship of books.
- Involvement in research: Sources might include authorship of publications, identification on the clinicaltrials.gov registration website.
- Activity in delivering medicine: Sources might include active in clinical membership of purchasing groups and value assessment agencies such as the UK's National Institute for Health and Care Excellence (NICE), recipients of health service performance awards.

Will you need different types of stakeholders? Does your definition of KOL and/or its profile criteria capture only clinicians or should it also encompass other possible stakeholders? Who are they?

Prepare a tracking matrix, such as a Microsoft Excel spreadsheet, to record the information you collect as you go. Identify each of the search variables within the spreadsheet.

Some characteristics might lend themselves to a binary Yes/No format, others might require scoring on a multi-point scale. Where possible include some form of predefined 'scoring' criteria for each practitioner. Remember however that using an arbitrary weighting system on disparate datasets does not guarantee that you will identify the best candidates.

You can download a copy of our simple Excel candidate name list and scoring spreadsheet from our website (www.niche.org.uk). As you locate information on each characteristic in your brief, score the candidate according to the pre-defined scoring system.

Step 2a: Get primary data

Database searching of secondary data has the potential to miss or rate some key stakeholders poorly. Alternatively it can falsely flag others as potentially highly influential. One way of qualifying your lead candidates before finalising your list is to conduct a peer-to-peer survey of stakeholders. In your survey you should ask key questions that focus down on the key attributes you are looking for. Traditionally, this approach has been conducted by mail or fax in small segments of your target population (see an example letter in Appendix 2). Only a very small fraction of those contacted tend to respond to your survey in such exercises. However, it is now possible to conduct surveys online and get almost immediate responses. Online qualification is a powerful technique. Not only can you qualify and validate your candidates – you can also include an option for peer nomination, tapping into the collective knowledge of the wider network..

Step 3 - Analyse, rank and identify

By now you should have a spreadsheet of data describing your thought leaders and somewhere in this list are the best KOLs for you. Obviously, you have not yet completed the identification process. Analyse the data you have by ranking the candidates.

The key to successful ranking is to develop an informed algorithm that will pull out those candidates who most best match the predefined characteristics of the 'perfect' KOL. The most straightforward approach to ranking is called an objective ranking system (ORS).

Methods that employ ORS utilise specific variables that you should score according to your pre-defined scale. Consequently, the process is completely objective and provides an unbiased account of the professional landscape for a given set of parameters. An alternative approach, peer qualification, provides another excellent approach to ranking. In peer qualification a panel of peers is asked to score each expert against predefined criteria.

At the end of the ranking process, you will have an ordered list with the right number of qualifying thought leaders. To complete the identification process simply select and approach your top scoring candidates. However, you may want to further interrogate your list before selecting candidates. For example, if you want to select individuals that can represent specific geographical territories – this can be achieved easily enough if you have collected the relevant information from the outset.

Remember that you can run your analysis as many times as you like. Change the weighting of your parameters to see how it affects the score/appearance order of your candidates. You may want to identify those on your list who will be good presenters, good investigators and/or those good at publishing in the scientific literature (see Figure 2). Ultimately, you want to create a group of KOLs where each brings their own different core skill to the table. This will give you the greatest flexibility when addressing your objectives – the days of the 'one size fits all' KOL are long gone. In the internet age it is all about tailored solutions.

HINT: Use the ranked list to identify an appropriate number of qualifying candidates (don't forget to include a few reserve candidates as well).

Your selection algorithm should move stepwise through the characteristics you have defined providing various degrees of weight or bias to each: for example some characteristics will be a 'must have' whereas some will be a 'nice-to-have'.

	Surname	Pharmacological knowledge	Academic Excellence	Clinical research	Clinical practice	Publication record	Speaker record	Communication skills	Scientific Advisory Board	Overall	Position
1	Prof Anthony Wierzbicki	93.5	77.7	94	74.5	77.3	77.6	77.1	81	81.59	1 st
2	Prof Simon Dubrey	86	84	77.7	61	83.5	86	87.7	81.5	80.93	2 nd
3	Prof Richard Aspinall	86.5	76	96	67.6	86.5	81	75.7	74	80.41	3 rd
4	Prof Jalmie Dunn	84	67.8	91	67.6	86.5	81	82.5	64	78.05	4 th
5	Prof Peter Rutherford	87.4	51.5	82.7	74.5	91	81	77.1	57.7	75.36	5 th
6	Prof Richard Fink	72.5	46	73.5	70.5	67.7	71	61	32.5	61.84	6 th
7	Prof Thomas Rank	65	56.5	66	62.1	61	62.1	57.7	57.7	61.01	7 th
8	Prof William Prince	61.5	51.5	66.5	45.1	71	62.1	67.7	51	59.55	8 th
9	Prof Steven Czop	66.5	31.1	70.5	55.1	66	62.1	67.5	57.7	59.56	9 th
10	Prof Ariel Lant	61.5	61.5	57.6	57.3	61	65.4	67.5	36	58.48	10 th

Figure 2: An example of KOLIP-P results generated from an algorithm, which cross-references and scores each candidate against a number of specific characteristics

Step 4 - Profile

Once the required number of thought leaders has been identified you need to build more specific profiles of the KOL candidates that will give you a greater insight into how they are going to fit together as a team.

Outline their career background, research areas, track record and other interests and/or activities. This should provide you with a clearer picture of your candidates so you can better understand who would be the best individuals to recruit as your thought leaders and how best to utilize them to achieve your goals. Use all the facilities you have at your disposal – university websites are usually a good starting point. You can download a copy of our simple KOL candidate-profiling template [here](#).

What makes someone a credible and influential authority is derived not just from their own personality and skills and the dynamic of their relationship with other individuals, but also from other context-specific factors [5].

Automation

The proliferation of online resources over the last few decades introduced the opportunity to perform KOL identification using programmes that crawl the internet identifying extensive lists of names and collecting 'all' available information about these candidates. A wide variety of techniques have been described including descriptive approaches, statistical and stochastic methods, diffusion process-based approaches, topological based methods, data mining and learning methods, and approaches based on hybrid content mining [6].

Each method has its own advantages and drawbacks [6]. However, could you be using a sledge hammer to crack a nut [7]? Although these systems offer possible time savings they rarely emerge as a cost-effective option on a smaller scale – you end up paying for the full capabilities of the system even if you don't need all the bells and whistles.

Many KOL identification projects do not need to exploit expensive and extensive automated search strategies. It should be noted that the characteristics of a top opinion leader have frequently been listed as, likable, trustworthy, educationally influential and self-confident [8, 9]. Obviously, it is not easy to identify these characteristics electronically – you need to keep this in mind if relying on automated methods of KOL identification.

Social Pressure

We are living in an era where the ways that people communicate with each other have changed dramatically because of the advent and expansion of social media. By propagation of social networking sites, opinion-sharing websites, blogs, and microblogs people can easily and freely interact and express their personal experiences, opinions, emotions, and feelings regarding any specific product, service or even in a political or economic issue [10-12]. In such an environment where information flows smoothly without regulation (or qualification), some users/persons have a high capacity to influence others. Just how much of an 'influencer' is your KOL going to be? Today's KOLs are not necessarily academics or people who talk at conferences.

Social networks provide an essential communication platform that facilitates the interactions of a broad range of people. However, traditionally physician KOLs have been slow to take up these communication modalities (tending to view them as somewhat unprofessional and offering little value). This introduces an extra layer of complexity when identifying your candidates – do you include a candidate who may not be a physician but has an established social network? There are some physicians and other healthcare professionals who actively engage with patients and professional audiences via social media and blogs. Social media networking tools and services have several measures that can be used to 'judge' the influencing capacity of an individual (number of followers etc.) – you may want to use these to weight your selection process.

Rising Stars

Rising stars are emerging leaders in a field who tend to outshine their peers in many ways, showing great potential for the future [13,14]. They often have an ability to see things from a different angle and to bring new approaches and ways of thinking to the table. The earlier you identify rising stars and engage their support the greater the benefit they can bring to your project.

The problem can be identifying who the rising stars are. In academia and clinical research, identifying thought leaders with high potential has tended to focus on their citation record, often in the form of a citation index score, however, this method is somewhat limited in that it relies solely on what is already an imperfect parameter and publication statistics also tend to change slowly [15]. Other methods of evaluating individual researchers include: g-Index; h-Index; i10-Index [16-18]. You can also look at levels of collaboration, considered to be an indicator of research performance. New entrants haven't the track record to build a significant publishing record that is likely to show up on traditional search strategies.

Several studies have reported on the utility of one or other aspects of research collaboration [19-22]. The Nature's Weighted Fractional Count (WFC) has been used to identify rising stars [23-26] although it does not take into account an author's position on a publication. It is generally accepted that the order of author listing on a manuscript is indicative of the extent of contribution/influence of the authors as per the published research. Even with such pragmatic approaches you are likely to miss the true rising stars while you may be fooled into thinking that you are achieving your goal because you employed recognised methodology. In the end, the only way to know that you have identified the right person is by having a grasp of your audience's current zeitgeist.

An interview with one of our KOL experts

Q What is the most important thing you need to know before starting?

A Plan for the future - both short-term and long-term. Conversion of candidates to active KOLs is an imprecise science and often your first choice candidates are unresponsive or uncooperative. It is advisable to have your second choice candidates lined up. Also, 'the brief' can change once more information on the characteristics of the candidates becomes available. Keep a thorough record of the methodology/selection process you follow - so you can easily modify and repeat it if necessary to get an alternate outcome as requirements change. You will be able to re-run or adapt the process over time so you can 'top up' your list with fresh blood or review how the thought leader landscape is changing.

Q How can you check the quality of your output?

A In many cases you find that a KOL list already exists before you start, alternatively it is simple to put together a list of 'the usual suspects' with a quick search of the scientific literature. Don't be afraid to use these lists to test the 'quality' and/or 'relevance' of your search by comparing them against the list of names you generate. A score of over 90% of names in the pre-existing list captured in your new list can be considered a good indicator of robustness. However, this process raises questions - should you now include the original names missing from your search results? If numbers are small their inclusion shouldn't affect the overall objectivity of your process so long as you document this step in your methodology/process document.

Q What is the most difficult part of KOL identification?

A With access to a large number of names and such well-defined pre-selection criteria, it becomes difficult to avoid a bland homogeneity in the list of candidates you generate. How can you spot those candidates who have the 'X-factor'? How can you objectively introduce a group of candidates who have a broader skills base and who are more likely to adapt to changes in the project requirements, as and when they occur? You need to identify a way of including 'wild cards'. At the same time, you need to avoid filling your list with the 'usual subjects' who are unlikely to bring anything new to the party.

Q What should you avoid?

A The process of data collection can become an all-consuming obsession that quickly overtakes allocated timelines and budgets. Set yourself achievable and measurable endpoints for your project and keep a track of resource you have used. Identify timelines and milestones that clearly describe when you should stop searching and begin assessing the quality and completeness of the data you have collected. In the end, the process of identification and profiling follows the law of diminishing returns - know when to stop.

What do opinion leaders want?

Although an honorarium is paid to the experts for input to the various projects, presentations and meetings, the relationship between a company and an opinion leader is much more complex. The key to the relationship is reciprocity [27]. The honorarium is inevitably less than the opinion leader could earn elsewhere (unless they are working for a blue chip pharmaceutical company) [28]. The meetings are demanding on their time and the travel adds additional burden to already busy schedules. Opinion leaders know that their expertise and influence are required if progress is going to be made in the right direction.

Most who volunteer to be KOLs are eager to influence the development of new products to benefit the field, their colleagues and patients. They are also keen to be recognised as leaders in their field. Others seek to raise their profile with regulatory authorities, or they want to interact with well-funded commercial research and development groups within their therapeutic field. Collaboration can often introduce the opportunity to fund aspects of their own research interests, possibly adding specific investigations and objectives to research and regulatory projects [29]. Look for candidates where you can achieve mutual positive outcomes. Please let us know if you discover the best way to achieve this. Competition for the most respected, experienced and marketable KOLs can be fierce. Companies that excel at building relationships with KOLs look to establish win-win scenarios [30].

Next steps - converting Thought Leaders into excellent KOLs'

Peer qualification/validation

Identify a group of peers. Engage them in assessing the candidates on your list (including each other, in terms of pre-defined characteristics (Figure 3).

Influencer mapping

Interactive:

Engage with your candidates asking them to score each other on who influences who.

Passive:

Publication clustering; search for co-authorships between thought leaders and candidate KOLs. Relationships can be expressed visually (Figure 3).

KOL development

Establish a development plan before you reach out to your candidates with a call-to-arms. Only through preparation can you ensure that you will convert most of your first choice candidates into KOLs, advocates and/or champions. Build a structured engagement package designed so that it fulfils regulatory requirements for transparency. Ask candidates what they are looking for

KOL lifecycle management

Keep your KOLs engaged throughout the lifecycle of your product, seeking fresh blood as required adapting the group make-up as focus changes and keeping the team fit for purpose.

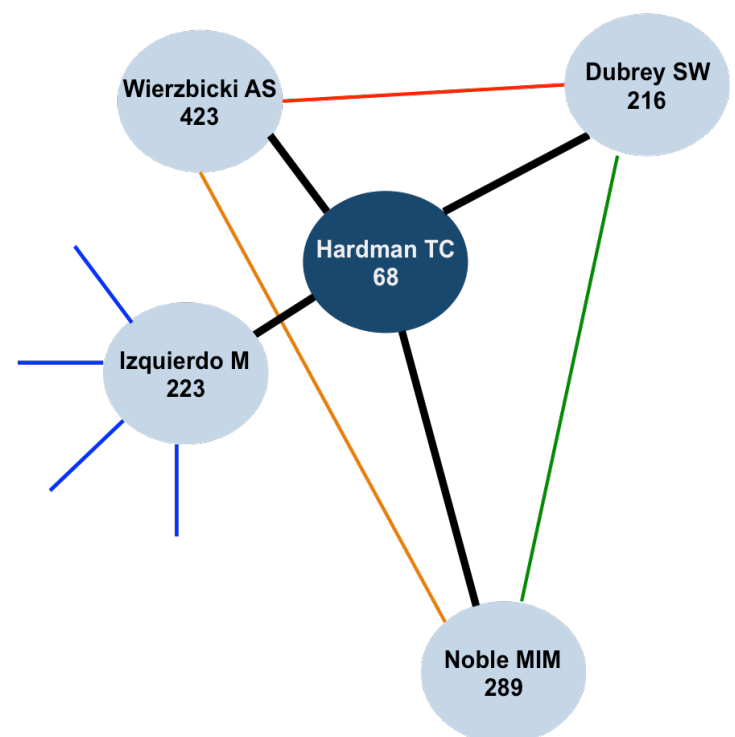


Figure 3: Building network clusters

You can build simple network clusters for individual KOLs based on the number of publications they have in common with other authors. The greater the number of connections, the more academic 'influence' an individual is likely to have.

The number represents the publication. How many the author has and how close the authors are, the greater the number of shared publications. You can also build wider networks between share 'authors'.

And finally...

The KOL landscape is constantly changing and evolving [31]. New names come onto the scene, familiar names retire and fresh alliances are constantly being formed. KOLIP-P provides you with a system that is responsive to change and able to adapt throughout the lifecycle of your project.

Try to identify how your goals and requirements may change as the years pass and how it may be reflected in your KOL profiles. In planning for the future pay particular attention to the identification of rising stars, so-called as they are at the early stages of their career but can be identified as highly likely to have influence over their peers (younger doctors, researchers, patient activists etc.) now and in the future. In these cases, it is often necessary to find intuitive and creative ways of identifying who they are.

You might have identified your ideal candidates. But this is only the first step. You still have to convince the candidate KOLs to work with you! There is a great deal of work yet to do. The next step is to generate a process of engagement and development. Once you have them hooked make sure that you maximise the KOLs contribution. This will most likely include their sharing key data, findings and positions with their networks and audience across their specific knowledge area. You will want to utilise long-term planning, management and implementation strategies to ensure that the thought leaders' expertise is used in the most appropriate areas.

How can Niche help?

Our team has a wealth of experience in identifying and profiling Thought Leaders using both traditional and more creative approaches. We can participate in the development of the project brief and gather a wide range of information to aid in the process of candidate selection, ensuring that they match the desired criteria. We can also take the process further by helping to you to interact with Thought Leaders who can help you develop your target product profiles, prepare your key messages and plan your dissemination packages.

Next Steps

We created this Insider's Insight into KOL Identification and Profiling to share a few helpful points and learnings that we have gained over the years. If you are interested we would be happy to share more of our experience with you and discuss how you can get the most out of your selection identification process.

I hope that you found our guide useful. If you would like to discuss support for any of our upcoming thought leader selection processes please contact me using the email address below:

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Appendix 1: Simple search methodology

1 Method

1.1 Step 1: Listing of Registered Anaesthetists

The following sources of information were used to identify anaesthetists to create a spreadsheet of names:

- Committee membership of the Royal College of Anaesthetists (www.rcoa.ac.uk)
- Committee membership of the Association of Anaesthetists of Great Britain and Ireland (AAGBI) (www.aagbi.org/)
- Committee membership of the RA-UK, the United Kingdom division of the European Society of Regional Anaesthesia (www.ra-uk.org)
- Anaesthetists listed on the UK Hospitals' Departments of Anaesthesia and Schools of Anaesthesia website (<http://research.ncl.ac.uk/nsa/anwebuk.html>). Each individual institution's website was accessed and anaesthetists were identified and verified
- Frequently appearing names to emerge from a search of journals and congress in the field of anaesthesia. Relevant websites were searched for editors/board members and congress speakers/organisers
- Anaesthetists involved in clinical trials identified (<https://clinicaltrials.gov>) using the search terms "anaesthesia AND United Kingdom"
- General Google search using the terms "anaesthesia, anaesthetist AND United Kingdom/UK"
- Names of anaesthetists provided by Baxter Healthcare detailing the current KOLs

A Microsoft Excel spread sheet of names was created.

1.2 Step 2: Data Collection

Searches were conducted for each of the names recorded in the [spread sheet](#) in Step 1 (Section 4.1) to collect data on each candidate. The following information was collected:

- Title, name and surname
- Leadership/society organisation
- Academic institution
- Health/Hospital institution
- Journal name/editor/editorial board
- Congress activity
- Clinical trial investigator
- Number of publications arising from a PubMed search using the following criteria: 'surname AND initial(s) AND anaesthesia'. Each publication cited was accessed and authorship verified
- Collaborators with other KOL candidates (identified from publications)
- Location: identified as being located in one of three UK regions (detailed in Section 4.3)

1.3 Step 3: Grouping of Anaesthetists by Region

Candidates were split into three groups according to the region in the UK where they work as follows: North (Scotland, Northern Ireland, North East, North West and Yorkshire and the Humber), South (East Midlands, West Midlands, Eastern, London and South West) or West (Wales and South West), (see Figure 1).

Figure 1. The Three Regions of the United Kingdom used in this Study



1.4 Step 4: Scoring Process to Rank Candidates

All candidates were scored according to the following criteria:

- | | |
|---|---------|
| • Membership of a leadership/society organisation | 1 or 0 |
| • Author of 1–10 publications | 1 or 0 |
| • Author of 11 or more publications | 2* or 0 |
| • Journal editor/editorial board member | 1 or 0 |
| • Congress activity | 1 or 0 |
| • Clinical trial investigator | 1 or 0 |

Score: 1 or 2 = yes; 0 = no.

*A score of 2 was used for this parameter as it was considered that a prolific publishing record would be reflected in the level of 'influence' such a candidate might be able to exert on their peers.

The highest score possible was 6. Candidates were subdivided by their total score: ≥ 4 (high potential) or ≤ 3 (low potential).

Appendix 2: Example peer-to-peer survey letter



Niche Science & Technology Ltd
Unit 26 | Falstaff House | Bardolph Road
Richmond-upon-Thames | London | TW9
2LH
United Kingdom

13 December, 2019

Dear **Dr/Professor [INSERT]**

Niche Science & Technology Ltd is a small medical education company that develops a variety of medical education materials for the pharmaceutical industry, charities, and patient and medical associations.

We are currently working on a project to identify and profile leading experts in the field of diabetes around the world. As a leading expert in this field we would greatly appreciate your input in this project and are writing to ascertain your interest in assisting us.

We would stress that we do not require you to undertake any research of any kind and are purely looking for 'top of your head' expert guidance to help us to identify which opinion leaders are considered excellent speakers or excellent authors etc.

If you are willing to offer your kind assistance, please complete the attached list. This list comprises two parts:

- 1 A list of international key opinion leaders in diabetes. For any names that you recognize, please add a score from 1 to 10 (where 1 is low and 10 is high) against each of the criteria listed, for example Clinical Research, Speaker Record, etc.
- 2 If there are any further or alternative names that you think should be included on the list of international experts, please add these to the spaces provided at the end. Again, please add a score against each of the criteria listed for each of these names.

We will be happy to offer an honorarium of €XXX reflective of the time you are able to provide us. Furthermore, we would assure you that your advices will be treated in confidence.

Should you have any queries, please call us on +44 (0)20 XXXXXXX or alternatively email us at: xxxxx and we will be more than happy to respond to any queries you may have. In the meantime, we look forward to hearing from you soon.

Kind regards,

Dr| Tim Hardman, Managing Director

Please return by fax or e-mail to Niche Science & Technology:
Fax : +44 (0)20 8332 2588
E-mail: info@cniche.org.uk

1. Experts in Anaesthesiology in the United Kingdom:

On a scale of 1 to 10, where 1 low and 10 is high, please indicate your own personal view on the experts you know in terms of:

Key Opinion Leader	Pharmacological knowledge i.e. in-depth knowledge of T2DM drug treatments	Regulatory knowledge e.g. involved with regulatory evaluations	Clinical research e.g. investigator experience	Clinical practice i.e. general clinical experience	Publication record i.e. published work e.g. research papers, etc.	Speaker record i.e. presentation at conferences, symposia, etc.	Communication skills e.g. interpersonal communications	Political influence e.g. influence on local drug usage guidelines	Approximate Age	Comments e.g. specialization
<u>Dr Anna Batchelor</u> , North										
<u>Dr Malachy</u> , North	9	6	9	6	9	10	9	8	65	Neuropathy
<u>Dr Arpan Guha</u> , North										
Prof John Kinsella, North	8	6	10	6	9	9	10	9	55	Clinical trials
<u>Dr Graeme McLeod</u> , North										
<u>Dr Sean Tighe</u> , North	9	5	9	7	8	8	9	8	55	
Prof Charles <u>Deakin</u> , South	9	5	9	7	9	9	10	9	55	<u>Clamps</u>
Prof David Rowbotham, South	9	5	9	7	9	9	10	9	55	Clamps