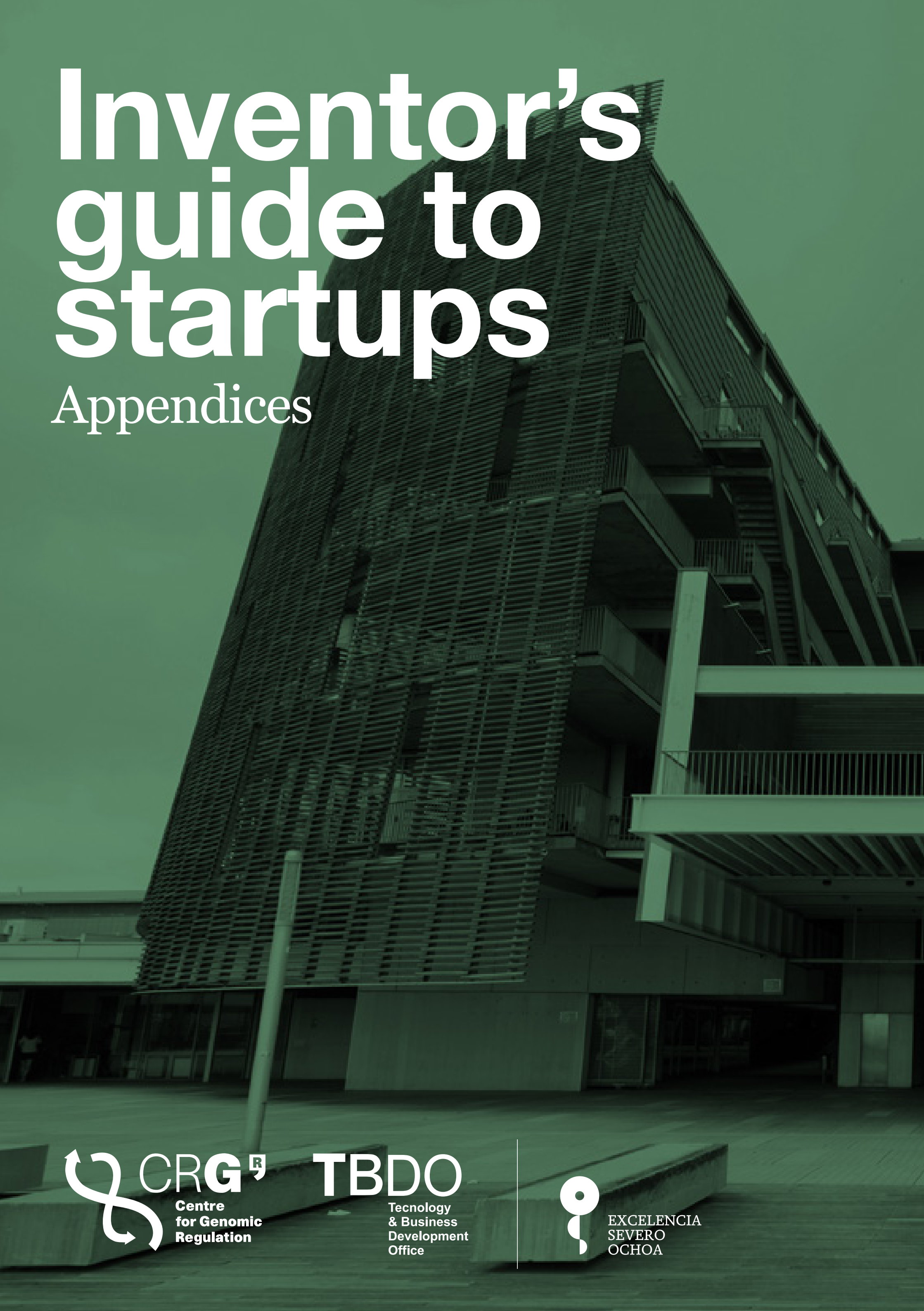

Inventor's guide to startups

Appendices

CRG
Centre for Genomic Regulation

TBDO
Tecnology & Business Development Office

EXCELENCIA SEVERO OCHOA

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Appendix A:

HOW TO DRAFT AN OPPORTUNITY REPORT

An opportunity report addresses the key factors underpinning your opportunity, and can serve as the base to validate your idea before shaping it into a comprehensive business plan. The following steps and advices should help you draft a persuasive opportunity report.

OPPORTUNITY DESCRIPTION

Analyze the opportunity from a customers' perspective. Describe the problems that they are facing, and explain exactly how your solution will mitigate their "pain". You should think of both functional and emotional aspects of your value proposition and thoroughly evaluate the problem/solution fit and the solution/market fit. In other words, you should answer the questions:

- *Need*: What problem, unmet need or customer pain are you addressing? How severe is the problem?
- *Solution*: What is exactly the technology that you are proposing? What features does your product have to address the unmet need? What is its state of development? Have you done any proof of concept? What are the outcomes? What are its applications? Why is it unique and superior? What is its competitive edge over current and future solutions? Are its advantages sustainable? How will your product impact the current market?
- *Customers*: Have you built something that people really want and the way they want it? Who precisely are your paying customers? Are they also the end users? Where do they leave? What do they do? What drives their buying decisions? Why should they spend money to adopt your technology? What evidence do you have that they will buy your product?

MARKET ANALYSIS

Describe the market that you will target, including its structure, its critical problems and shortcomings and the current trends. It is important to describe the market segmentation and to focus on the addressable market that your product will specifically serve.

- *Size:* What is the size of the global market? What is the size of your specific segment? How can the size be measured (units, people, currency)? What is the demand for your product?
- *Dynamic*: What is the market potential? How is the landscape changing? How has the market grown over the last years? Is it expected to grow in the next months/years? Do you have evidence?
- *Trends*: What technological, economic, regulatory, demographic, socio-cultural trends can affect the market? What effects will they have on your business, either favorable or otherwise?

COMPETITIVE ANALYSIS

Describe the structure of the industry in which you will participate.

- *Industry*: In what industry will your company compete? Is it consolidated or fragmented? Who is precisely the competition? How will your business fit with, or change, the current industry paradigm?
- *Value chain:* How will your business fit in the industry value chain? Does your customer usually buy this type of product directly or through a different sales channels? Do buyers or suppliers companies have so much power that they can leave you with little profit margin?
- *Competition:* Are there other companies in the market already developing a technology that address the same general need? If so, what is the stage of development and why is your technology better? What is your competitors marketing strategy, in terms of segmentation and positioning? What is your competitors marketing mix, in terms of the 4Ps of marketing (product, price, place and promotion)?
- *Barriers to entry:* How difficult it is for new companies to enter the market? Is it controlled by a few dominant players, or is the industry still developing? How will your company break in?

- *IP protection:* What is your IP position? Is broad IP protection possible to secure? Will your IP give you a competitive advantage over your competitors? Or will it create a barrier to entry for future competitors? Are there key background intellectual property rights owned by someone else? If so, will you acquire the necessary rights or redesign the technology to assure "freedom to operate"?

- *Market share*: What share of the addressable market can your company obtain? Is it worth the effort?

BUSINESS MODEL

Describe how your product will generate profits for your company, while delivering value to your customers. Focus on how the money flows.

- *Value proposition*: How does you product deliver value to customers? How does it solve their pain?

- *Customers*: How will you reach, attract and retain customers?

- *Revenues*: How does your product deliver value to your business? How does it generate profits?

- *Operations:* What are the company's key resources to generate income?

ENTREPRENEURIAL TEAM

Describe if the entrepreneurial team already possesses the key capabilities to accomplish the project, or it should be completed by external expertise.

- *Team members*: Who are the team members? What is their background? Do they have entrepreneurial experience? How did they / will they help the project?

- *Team capabilities:* Do they possess all key capabilities and contacts to implement the project ad run the business, *i.e.* R&D, marketing, operations and finance? If not, will these be supplemented?

- *Goals and expectations:* What are the personal expectations of the team members? Are their goals aligned with the common interest of the company? Do they have good personal relationships?

DEVELOPMENT NEEDS

You need careful R&D planning to get your technology ready for commercial sales.

- *Milestones:* How much time and money is necessary to achieve the key development milestones and bring the technology to the market?
- Regulatory approval: Do you need regulatory approval? Is there a track record of similar products obtaining approval? What is the history of similar products?

RISK FACTORS

All opportunities are subject to significant risk factors and uncertainties. In order to manage them, you should be able to identify them and quantify them beforehand.

- *Identify*: Can you anticipate which elements of your idea or its implementation can go wrong? Are they internal or external to your idea?
- *Quantify:* Can you quantify how likely it is that each of these elements will go wrong?
- *Mitigate:* Would you know how to manage these risk factors? Will you be able to mitigate them?

Appendix B:

HOW TO DEVELOP A BUSINESS PLAN

A business plan should be clear and concise and address the main factors that investors will evaluate: a convincing product, its market potential, your competitive advantage (including IP) and a proven management team. The main sections of your business plan should not be longer than 10 pages, supplemented by just as many pages of appendices that support your document by figures, tables and other exhibits that you might find useful. Make sure to cover exhaustively the following sections:

COMPANY NAME

The right name can make a huge difference when it comes to propelling your business to success. A good branding strategy, both for your company and your product, can help you position in the competitive arena and get you customers' loyalty and higher profit margins at a reduced marketing cost.

EXECUTIVE SUMMARY

A high level overview to inspire the reader to find out more. Ideally, the executive summary should act as a stand-alone document of 1-2 pages.

COMPANY OVERVIEW

A quick review of the company's legal structure, ownership, location and owned facilities, if any. Be sure to include a brief description of what you have done so far, focusing on the research field and the resulting intellectual property. You should also introduce the guiding objectives of your company:

- *Vision:* What the company wants to accomplish, and where it wants to be, in the future. The statement should let your customers understand your purposes and values.
- *Mission:* How the company will execute the vision, in the present. The statement should let your stakeholders understand what steps are your taking to reach your goal.

You can think of them as the trajectory (mission) that you are setting to reach your destination (vision).

PRODUCT DESCRIPTION

Build upon the opportunity analysis of your Opportunity Report to present your product (good or service) and explain how it solves the pain (need or problem) that your customer is facing. You should elaborate a compelling **value proposition**, addressing different aspects of value. How does your product add value to all stakeholders that might be interested in the process of solving the customer's pain?
If you have developed or in-licensed intellectual property to protect your business from competitors, you should detail all information here. Finally, if you already have a vision of the products that you want to launch in the future, you can briefly mention your future plans. However, don´t forget that the main focus of this section should be towards the first products that you want to bring to the market. Especially for platform technologies, which can generate multiple products, you should first focus on a single "beachhead" market, where to prove the value of your technology. Note that this should not be the largest market, but rather one which is not currently addressed by other products. If you convince early adopters in the beachhead market, your company can progressively introduce new products to other mainstream markets.

BUSINESS MODEL

The business model is the core of your business, closely tied to your value proposition, but focusing mostly on how the money flows. It is the engine through which your product adds value to your customers (by solving their problems) and creates value for your business (by generating revenues). You should describe how your company is positioned within its industry value chain and how it interacts with partners, suppliers and customers. Be explicit about your projected profits, calculated according to your key assumptions and projections regarding costs and revenues. What are the major drivers of cost (fixed and variable)? What are the sources of revenues (direct sales, licensing, subscriptions …)? Remember that there are a number of consolidated business models that explain how companies of a particular industry commonly create and deliver value. Typical examples include franchise, production, direct sales, distribution, commission, subscription, freemium, software as a service, pay what you can/want, and value added reseller, among others. Of course, you are free to combine them or create a new disruptive one, if you feel that your value proposition does not fit any of the existing common ones.

MARKETING PLAN

The marketing plan is a detailed description of the resources and actions that you will need to achieve your financial objectives (sales and profits) by implementing your marketing & sales strategy.

1. ANALYSIS - *What is the competitive landscape now*?

Recapitulate all information collected in your Opportunity Report about the market, the competitive landscape and the customers' needs and buying behaviors. You can use a competition matrix, to list competitors' products versus their features, and to show your competitive advantage over others' solutions. Even if you have a disruptive product, don´t assume that you have no competitors. Rather, take into consideration that your customers are currently addressing their need somehow and they might be reluctant to change their habits or budget.

2. MARKETING STRATEGY - *Where does your company want to be in the future?*

Now that you have detailed your product offering, and you have analyzed the market and the competitive landscape, you can turn your focus toward your target market and formulate your marketing strategy by implementing the so-called STP process: where are you going to sell (Segmentation), who are you going to sell to (Targeting), and how are you going to compete (Positioning)?

- *Segmentation*: Market segmentation consists of dividing a broad customers (or businesses) market into sub-groups, each sharing one or more common characteristics. Major segmentation criteria are: geographic, demographic (gender, age, race, education, occupation, religion …), psychographic (lifestyle, personality ...) and behavioral (nonusers, occasional users and regular users; early adopters, late adopters and laggards; enthusiastic, indifferent and hostile; …).

- *Targeting:* Targeting consists of choosing the market segments you want to sell to. Don´t make the mistake to think that you can target "everyone". Create a targeting matrix, by listing market segments versus distinctive features (size, trend, affinity, rivalry, customer acquisition difficulty …), and carefully select the market segments that you want to target.

As a startup company your main marketing objective should be to attract new customers. Nevertheless, you may want to explain also how you are planning to retain your customers.

- *Positioning*: Positioning consists of defining where your brands (company and products) should stand, in relation to competitors, in the marketplace as well as the mind of the customers. Typical positioning criteria include quality, price, service, safety, customization …

A good positioning strategy should make your product stand out from the rest, and give you better chances to sell it. It can be helpful to formulate a unique selling proposition (UPS), which describe how your company or product is different from competitors (*i.e.* most innovative, best in class, first on the market, cheapest) and why they should choose you instead of someone else.

3. EXECUTION - *How is your company going to get there?*

Once you have defined your positioning strategy, you can define the best **marketing mix** to achieve your financial objectives. The marketing mix is commonly executed through the so-called **4Ps** of marketing:

- *Product:* Create a product that a particular group of people want. Consider answering the following questions: Who are your customers? What needs does your product satisfy? Have you missed out any features? Have you included useless features? What does it look like? How and where will the customer use it? How is it branded? How is it different from competitors?

  Price: Price it at a level the target group is willing to pay. Consider answering the following questions: Is the customer price sensitive? Does the price match the value he expects? Will a small price cut gain you extra market share? Will a small price increase gain you extra profit margins? How will the price adapt to specific segments of the market? How will your price compare to competitors? Who buys the product (*i.e.* purchase departments or end users)?

- *Place:* Sell it in a place that those same people visit regularly. You should decide the best distribution channels to get your product into the hands of your customers. Beyond direct selling, the distribution channels through which you will reach your customers might have to rely on an increasing level of intermediators, including retailers, wholesalers and agents. Consider answering the following questions: Where do customers look for your product? Can you access the right distribution *channels*? How do your competitors sell? Can you learn from that and differentiate?

- *Promotion:* Promote it anytime and anywhere your target customers need to buy. A promotion plan details how you are going to communicate with your customers. Typical communication tools include branding, packaging, advertising, publicity, public relations, social media, sales force, direct marketing and sales promotions. Consider answering the following questions: How will you make customers aware of your product? Are there any environmental issues that dictate when to launch the product? When is the best time to subsequently promote it? How do your competitors promote their similar products? Can you learn from that and differentiate?

DEVELOPMENT PLAN

The development plan charts the whole process of product development, from design and production to marketing and sales. You can build upon the Development Needs and Risk Factors sections of your Opportunity Report and structure it in different sections:

- *Timeline*: What is the development timeline of your technology? How much time will it take and how many people are required? Do you need to hire additional staff?

- *Key milestones:* What are the key milestones of your development plan? What will you do, when and why? For instance, if you are producing a medical device, you will have milestones associated with clinical testing and regulatory approval.

- *Metrics*: Which key metrics will you track regularly to judge your business’ performances?

- *Risks and uncertainties:* What are the inherent risks of your business? How will you tackle these issues? Do you have a plan B? And C and …

OPERATIONAL PLAN

The operational plan describes how the business will function in its daily operations. Essentially, you should demonstrate that you have thoroughly thought through the logistics of the organization, including how you will utilize people and resources in order to achieve your key milestones. If possible, try to give investors some evidence of early success or "traction", such as a strategic partnerships or initial sales. You should show that other people, beside you and your team, care about the company. Consider answering the following questions:

- What are the core elements of your operations? Will they include personnel management, R&D, manufacturing, distribution, marketing and sales? How many people will you need?

- Which components of the value chain will be performed internally and which other should be outsourced to contractors or partners? Will you rely on external companies to supply material? Will you get these components and the material at reasonable price?

- What kind of support will be required by your customers? Will you provide it directly or rely on an external company? If you are selling a service, will you deliver it in person?

- Where will your company be located? What equipment and logistics will be needed? What processes and systems will you implement to support operations?

- How will you manage relations with suppliers, partners and customers?

MANAGEMENT PLAN

Running a successful business strongly relies on execution. Remember that, to a great extent, investors tend to invest more in the people than the idea. This section of the business plan is where you can show that you have thoroughly thought through the complementary expertise needed to achieve your key milestones and that you are building the right team to successfully execute your idea. Essentially, you should show a proper balance of technical and business management skills to operate the company successfully. Don't make the mistake to give everyone a C-level title. These can sound unrealistic for a startup and it might be better to allow for further growth of titles as the company grows.

You can build upon the Entrepreneurial Team analysis of your opportunity report to introduce your current management team members, along with their background and responsibilities, and to describe the main functions that still need to be filled. Consider answering these further questions:

- How will key decision be made, *i.e.* by executives, advisors, board of directors?
- Which key roles are needed early on and which ones will be outsourced or incorporated later?How will you manage relations with suppliers, partners and customers?

FINANCIAL PLAN

The financial plan is the last section of the business plan, usually supplemented by spreadsheets in the appendices. It should build upon the information gathered in the prior sections to demonstrate how the planned resource allocation and financial management will allow your company to grow, by spending capital to generate profits, over the timeframe of the business plan. A typical financial plan will have monthly projections for the first year, followed by annual projections for the following three to five years, as relevant to the nature of your venture. You can structure the plan on the following sections:

- *Capital requirements:* How will you finance your venture, given the investment needed? Does your investment strategy rely on staging? In this case, who is likely to fund the initial stages? What kind of investors are you likely to attract later? What will your investors get in return? Have you planned a detailed and viable exit strategy? Which companies might be interested in buying you if you are successful?

- *Key assumptions and risks*: What key assumptions of your financials are important for your business success (*i.e*. minimum sells, market penetration …)? In other words, what risk are you taking with your business? How can you prove your assumptions? How can you minimize them?

- *Key milestones:* What key milestones are required to meet the financial projections?

- *Metrics:* What are the key metrics to be measured and tracked?

- *Financial projections:* What are the projected costs, revenues and cash flow during the timeframe of the business plan? When will the company break even?

Your financial projections should better be supported by a spreadsheet that can be updated and evolve while the company is growing. The main statements that you should include in your financial plan are:

- *Profit and Loss (P&L):* This statement pulls data from your projected revenues, costs and expenses and shows if the company has made or lost money over the period being reported.
- *Cash flow:* This statement keeps track of how much cash your company has at any given point. It is useful to meet punctual or seasonal cash demands and to avoid running out of funds to sustain your business.
- *Balance sheet:* This statement lists assets, liability and equity and provides a full overview of the financial health of your business.

APPENDICES

Include figures, tables, graphics, charts, spreadsheet and other material to support your business plan. Make sure that the exhibits are correctly referenced and explained in the main text and that they add value to the document.

Appendix C:

ALIGN WITH CRG INTERNAL POLICIES

This appendix outlines the main steps that entrepreneurs should follow to align with CRG internal policies and to demonstrate to potential investors that the startup has secured the right to exploit the CRG technology.
In case of any discrepancy between the summary below and the relevant policies, the updated official version of the relevant policies shall always prevail.

IP&TT POLICY

The Intellectual Property and Technology Transfer (IP&TT) policy clarifies and complements existing laws and regulations on the ownership, management and transfer of IP rights following from the research performed at publically funded research institutes. Further, it describes the CRG mechanisms designed to promote the transfer of research results to the scientific community, industry and society. For the purpose of this guide, this chapter summarizes the most important aspects of the policy related to effective technology transfer.

Ownership of intellectual property

CRG researchers should be aware that the CRG shall be the owner of all the inventions and works arising from their research activities, this without prejudice of their inventorship and authorship rights. The ownership interest applies to any sort of industrial and intellectual property, including: patents, copyrights on software, mask works, tangible research property, trademarks and know-how.

Distribution of revenues from commercial transfer

Net royalties received by the CRG from the commercial transfer of CRG innovations are re-distributed internally to CRG inventors and authors and to the CRG valorization fund, to promote further technology transfer activities and foster the next generation of innovation.

Licensing request process

Entrepreneurs, who are interested in the licensing of a CRG technology for the creation of a new startup, must submit a formal request to the TBDO, complying with the following main requirements:

- *A draft business plan* that identifies the resources and steps necessary to develop and exploit the technology, and that sufficiently describes the opportunity, the market, the competitive landscape, the marketing strategy, the economic potential and the financial feasibility.
- A presentation of the *entrepreneurial team*, showing that the management team it is sufficiently experienced to execute the business plan and capable of raising capital.

In addition, CRG requires that conflicts of interest concerns be addressed in a Conflict-of-Interest Management Agreement.
Once the entrepreneurs have sufficiently proved resources and commitment to develop and exploit the CRG technology, the TBDO may negotiate the terms and conditions to enter into a license agreement with the startup. Entrepreneurs should take into account that TBDO negotiates at arm's length with the new venture and must serve the interests of the CRG. Nevertheless, TBDO is sensitive to the many differences between a new business venture and an established company, especially in terms of assets, inherent risks and financial capability, and takes these differences into account, by considering forms of collaboration in which CRG and the innovators may share in the startup company's eventual success, provided that the mission and purposes of CRG are also achieved. To this end, TBDO has created a variety of agreements designed to get startup companies access to the technology they need, in line with the strategic vision to enhance their ability to eventually succeed.

License agreement

A **license agreement** is a "permission" given by the CRG (the 'licensor') to the startup (the 'licensee') to use a CRG industrial and intellectual property right, such as a patent or copyright, as well as know-how in an agreed upon manner. This "permission" can grant rights to develop and use the

technology and to generate and commercialize products based on the technology. Agreements can be tailored to suit the financial realities of many startups as well as the particular industry and/or market within which the company will be competing. When developing license-specific provisions, TBDO follows consolidated industry standards and adopts "comparables" obtained through its Business Advisory Board and generally acceptable in the academic sector. Nevertheless, as with licensing to existing companies, there are still some terms in CRG licenses to startup companies that are non-negotiable.
The majorities of clauses in TBDO licenses are **negotiable**, and provide for both financial and non-financial terms.

Typical **financial considerations** include, but are not limited to:

- Reimbursement of past, ongoing, and future patent costs.
- Annual fees for license maintenance.
- Equity. Startup companies face the combination of high developmental costs, uncertainty as to the potential value of the technology and limited financial resources. CRG understands that the request for certain forms of payments and certain level of royalties may adversely affect the viability of the startup in its initial stages. For this reason CRG may contemplate, at its discretion, a participation in the share capital of the startup. In general, equity is not taken in preference to cash; rather, in the absence of sufficient cash compensation for technology licensing-related transactions and when TBDO believes that it has negotiated the best cash terms possible, equity is taken as additional compensation. In this sense, the shares are viewed as a reasonable business solution to enhance the overall financial package acceptable by the company and its investors, whilst providing an opportunity for CRG to share its potential return.
- Milestone payments, based on the commercial development plan. When flexibility is needed, CRG can agree that certain fixed fees will be paid upon the achievement of specific milestones related to the development plan, regulatory filing or approval or commercial milestones, such as the first commercial sale in certain countries or regions or the initiation or conclusion of preclinical and clinical trials.

- Royalty payments on net sales. Rates depend on a variety of factors such as the value of the invention, the level of development of the inventions, the time to market, the territory, the patentability, and whether the license is exclusive or nonexclusive.

The **non-financial considerations** of the license are equally important and will include:

- Degree of exclusivity: non-exclusive or exclusive within the field of use and territory in which the license is granted.
- Performance requirements (or "Commercially Reasonable Efforts"): with deadlines for meeting them, to assure that the company is developing the technology in accordance with the development plan and the commercial plan.
- Reporting requirements.
- The company's or CRG's right to prosecute the licensed IP, at the company's expenses, and to pursue follow-on and new IP.
- The company's ability or limitations to sublicense the technology.
- Termination: Licenses generally last for the life span of the protection of the licensed IP right, although they can be terminated upon notice by the startup, or by the CRG, under certain predefined conditions, such as a material breach of the agreement. Upon termination, rights to the IP revert back to CRG. In any case, CRG shall always retain a right to research.
- Further standard clauses, such as confidentiality, liability, indemnity, term and termination, notices, governing law and jurisdiction.

TBDO's goal is to tailor the overall balance of these negotiable terms to fit within the specifications of each individual licensee and the specific opportunity. However, certain terms are so important that yielding on them would negatively impact the principal activity of CRG, namely academic research.

Typical **non-negotiable** terms are:

- The right of CRG to use licensed technology for research and educational purposes.

- The right of CRG to publish research results.
- Indemnification of CRG by the licensee.
- The absence of warranty granted by CRG and the absence of provisions under which CRG shall be requested to indemnify the startup ; and
- Limitations on the use of CRG's name and logo.

Option agreement

In many cases startups will not fulfill the requirements to negotiate an exclusive license. In such cases, TBDO might negotiate a time limited **option agreement**, which will give the company the first right to negotiate a full license when those requirements are met. The agreement stipulates a term to meet such requirements and to exercise the option, on a case-by-case basis. This gives a company some extra time to conduct proof of concept developmental research or to fulfill some missing requirements of the business plan, *e.g*. refining the business strategy, conducting due diligence on the market, organizing the management team, and/or identifying potential investors. Option agreements can be *exclusive* or *non-exclusive*. A typical exclusive option agreement provides the new venture with a limited timeframe within which TBDO will not actively market the technology or seek other potential licensees. In exchange, the party receiving the exclusive option often pays an option fee to be mutually agreed and assumes the responsibility for reimbursing ongoing IP expenses during the term of the option.
If the new company does not fulfill the requirements to exercise the option by the end of the term, TBDO, at its sole criteria, may either consider granting additional time or pursue other licensing alternatives.

Term sheet

At the onset of the negotiation of either an option or a license agreement, a **term sheet** is usually drafted by the TBDO, to ensure that all parties agree on the basic terms of the agreement, including the financial terms. This process may involve the preparation of a number of drafts and may require to conduct discussions, before both the CRG and the licensee come to a mutual understanding on the financial and commercial development terms, but will be extremely useful to achieve a mutual understanding of the license and will speed up the subsequent drafting and negotiation of the definitive full license agreement.

After execution of the license agreement

Your relationship with CRG does not end with the successful execution of a license agreement, as the startup company must provide CRG with regular commercial development reports and annual reports on royalty income payments. Enduring license agreements might also need to be amended from time to time, for instance to adapt the startup's strategy to new market opportunities (when such amendments are sufficiently supported by robust data and information). Commercialization advancements, and smooth relationships overcome the demanding nature of license contract terms that at one time made sense, but years later might no longer serve the interests of the company and/or the CRG.

Participation of the CRG in the share capital of the startup

The participation of the CRG in the share capital of the startup by holding equity shares will be subject to the previous approval of the Board of Trustees of the CRG. In case the CRG decides to participate in the share capital of any startup, such participation will be subject to amongst others the following requirements:

- It will usually represents a minority share of equity in the startup.
- It will be protected with an anti-dilution clause in case of subsequent share capital increases below a valuation to be mutually agreed upon.
- It will be protected by limitations to the startup drag-alone right, which might not be exercised below the market value of the shares.
- Startup in which the CRG participates must annually submit their annual accounts to the TBDO.
- The CRG will not usually hold a position in the startup's Board of Directors. Nevertheless, the TBDO will be entitled to appoint an observer to attend each and all of the Board of Directors' meetings.

Participation of CRG researchers in the startup

If you want to start a company based on a CRG technology, you must be sure to comply with CRG policies and Spanish legislation when choosing your level of involvement in the company:

- If the CRG is not a shareholder in the startup and you are still a CRG employee, your participation in the share capital of the startup cannot be above 10% and you will not be able to be a member of the administrative body, in accordance with the Spanish legislation.
- Depending on your specific appointment, limitations may apply to the time that you can devote to the company. For example, CRG group leaders are not allowed to spend more than a certain percentage of their time for outside activities, such as consulting.
- The CRG and the startup will be entitled to enter into service and/or collaboration agreements on a case-by-case and project by project basis.

CONFLICT OF INTEREST (COI) POLICY

Conflict of Interest refers to situations in which there is a *potential, actual or perceived* divergence between your professional duties as a CRG employee and your private interests as an entrepreneur, such that an impartial observer might reasonably question whether your professional decisions could be influenced by your personal interests. Any concerns regarding conflicts of interest should be either eliminated or properly managed by the CRG COI committee, in accordance with the COI policy.

If you have questions about whether a specific activity related to your startup represents a conflict of interest, the TBDO can offer preliminary advice with respect to CRG's policies.

USE OF CRG NAME AND LOGO

As a public entity, the CRG is prohibited from supporting, favoring or endorsing any specific company and/or product. As a result, any licensee company that wants to use CRG logo and name should obtain the CRG's prior express authorization. Approval is typically given when the statements are factual and do not imply endorsement by the CRG — for example, the new venture is allowed to state that it has licensed IP rights from the CRG; however, the CRG will not endorse any particular company or product.

FINAL APPROVAL FROM THE CRG BOARD OF TRUSTEES

Once the license terms have been agreed upon, and once you have complied with all CRG requirements for the establishment of a startup, the next step is to provide notification of the new startup to the Board of Trustees and obtain its approval for the entry of CRG in the company's. The director of TBDO will send his/her recommendations, the executive summary, the license agreement, the shareholders' agreement and, on a case by case basis, other complementary documents, to the Director and Managing Director of CRG, for their approval and submission to the Board of Trustees.

Appendix D:

FINANCIAL CONSIDERATIONS IN STARTUPS

EQUITY INVESTMENTS

It is very important to fully understand the equity structure of your company and what it means for you as the company grows. Shareholders' equity is the amount of public financing that your company has obtained through the sale of shares from both common and preferred stocks.

Common stock. Common shareholders have the right to vote for directors and to approve significant decision, such as mergers or sales of assets. They usually also have rights to receive dividends and assets upon liquidation of the company, although subordinate to the rights of preferred shareholders. In general, common shares are taken by founders and employees, while investors take preferred shares.

Preferred stock. Preferred shareholders have certain preferences over common shareholders. Overall, the more the company needs the investor's money, the more and better preferences the investor receives. When a company attempts to raise cash in several subsequent rounds, later rounds usually have additional or senior preferences than earlier rounds. The most common preferences reserved to preferred shareholders are summarized in the following protections and rights.

Control preferences reserved to preferred shareholders

Voting rights. Preferred shareholders usually have the right to vote on all matters voted on by common shareholders, on an as-converted basis, as well as the right to vote as a separate class on certain significant protective provisions. Protective provisions include liquidation, dissolution and sale of the company; changes to bylaws, certificate of incorporation and board of directors; issuing preferred shares with preferences the same as or senior to the existing preferred shares; issuing debt above a certain level; granting IP licenses; and hiring or removing key personnel. The right to vote as a separate class effectively gives preferred shareholders a "veto" right over common shareholders.

Preemptive or maintenance rights and rights of first refusal. Preferred shareholders are usually given the opportunity to purchase an amount of any additional shares issued by the company ("maintenance") or intended to be sold by the company ("first-refusal"), in proportion to the investors' pre-sale ownership, so as to maintain their respective ownership percentages.

Anti-dilution protections. In several different circumstances, a new round of financing could result in the substantial dilution of the earlier investors' "ownership percentage" of the company. In order to avoid reducing the "economic deal" of their investment, preferred shareholders usually require some degree of anti-dilution protections, based on a variation of the following main methods:

- *"Percentage ownership".* This protection maintains the investor's initial percentage ownership of the company, at least until a certain valuation is reached. It is the approach most commonly used by CRG.
- *"Full ratchet".* If a new investor is issued a cheap stock, this protection gives an early investor the same economic deal as a new investor, usually at the expense of the common shareholders.
- *"Weighted average".* This protection aims to maintain the investor's economic deal even when the percentage ownership may be decreased.

Redemption/put rights. Preferred shareholders may have the right to force the company to repurchase their preferred stock at a given price, which is usually a multiple of their initial investment.

Exit preferences reserved to preferred shareholders

Optional conversion. Preferred shareholders may have the right to convert 1:1 and at any time their shares of preferred stock into common stock.

Mandatory conversion. Preferred shareholders may have the right to convert their shares of preferred stock into common stock upon occurrence of a certain event (*e.g.* at IPO).

Piggyback registration rights. This exit strategy entitles preferred shareholders to register their shares whenever the company conducts a public offering.

Demand registration rights. This exit strategy entitles preferred shareholders to demand that the company register their stock for resale in the public market without restriction.

Liquidation rights. Upon a liquidation event, preferred shareholders may be entitled to several rights, including the right to a pro rata portion of the value of the company and the right to be paid back their initial investment (or a multiple thereof) prior to the rest of common shareholders.

Drag-along rights. In case a third party purchaser wants to acquire more shares than a selling preferred shareholder owns, such selling preferred shareholder may have the right to oblige other minority shareholders to join the deal, and force them to sell their respective shares of the company on a pro rata basis. This right basically prevents minor shareholders to stop major shareholders' deals.

Other rights given to common and preferred shareholders

Tag-along rights. In the case thata third party purchaser wants to acquire a percentage of the company's stock from a majority shareholder, this rights entitles a non-selling shareholder to transfer to the third party purchaser its respective pro rata amount of the transferred shares. In case of sale of a significant portion of the company, this right basically protects minor shareholders by allowing them to join the deal and to sell their stock at the same terms and conditions that apply to the selling shareholders.

Dividend rights. Preferred shareholders usually have the right to participate in dividends at the same time that these are paid to common shareholders. Furthermore, they usually have additional rights, including (i) the right to receive dividends before common shareholders, (ii) the right to be paid a fixed amount of dividend per annum (*e.g.* 5% of their investment), (iii) the right to accrue unpaid dividends, and (iv) the right, in case of sale or liquidation of the company, to get back their original investment, plus the accrued dividends, plus a portion of the residual value of the company.

DEBT INVESTMENTS

Debt financing occurs when a firm raises money by means of debt instruments, such as promissory notes, debentures, and bonds. In contrast to an equity investment, a debt investment makes the investor a creditor of the company, not an owner. It also makes a debt holder the first in line to receive money back in case the company goes bankrupt. In general, for early stage ventures, debt investment are less common than equity investments, because the likelihood that a startup can succeed and pay off its debts is very low. Accordingly, investors prefer to invest in equity which, under comparable risks conditions, may eventually provide a higher return on the investment.

Convertible loans

Convertible loans are a less common form of debt funding, sometimes preferred by early investors because they offer the opportunity to be converted into common or preferred shares at a specified conversion rate and within a specified timeframe, usually at the next investment round.

WARRANTS AND OPTIONS

Warrants and options are agreements that give the holder the future right but not the obligation to purchase a company's stock at a specific price, called exercise price or strike price. They are very similar in many ways, but there are a few key differences that distinguish them:

Recipients: Warrants are given or sold to investors as an incentive to invest in the company and participate in its growth. Options instead are given to key employees, management and consultants in exchange for services or as part of an equity compensation plan.

Dilution: When a warrant is exercised, the company needs to issue new stock, thus causing dilution. Options, instead, are issued from already-outstanding stock.

Maturity: Warrants have longer maturity periods than options, being the first usually measured in years and the second in months.

Appendix E:

STEPS TO INCORPORATE A "SOCIEDAD LIMITADA" IN SPAIN

At the outset of a new business venture, there are a number of key steps that must be made, including but not limited to the following ones:

- **Get a certificate of reservation of the company name**. Reserve the company's name, *e.g.* "NewCo, S.L." at the Central Commercial Registry. Names are important in that they identify the company and its products in the marketplace. For this reason they should be unique, memorable and clear of other existing businesses in similar market spaces.
- **Set up a physical mailing address.** Find a location for an office/lab. Company headquarters can start in a residence, but should move to a separate space when operations begin. Currently the CRG cannot incubate its startups at its premises.
- **Apply for the provisional VAT number** ("NIF provisional"). It is necessary to file the "Form 036" and the notarial deed of incorporation with the corresponding tax authority.
- **Open a company business bank account.** It can be opened in the name of the Company, on the basis of the certificate of reservation of the Company's name, as "Company in the process of being incorporated".
- **Deposit the total amount of the share capital.** Each founder should deposit his/her quote of the total share capital, up to the total amount of the share capital, by means of a bank transfer from each founder's personal bank account. The minimum capital requirement for a SL is € 3,000.
- **Get a bank certificate of the funds deposited**. The certificate gives evidence of the funds deposit at the bank account of the Company by each of the founders. It should indicate the identity of each founder, the amount deposited by such founder and the date of the deposit of the founder. The validity of the certificate is two (2) months from the date of issuance.

- **Execute the company's deed before a public notary.** The founders should go to a Public Notary with the documents gathered so far for the incorporation of the By-laws.

- **Submit the deed of incorporation before the Barcelona Commercial Registry for its registration.** The estimated term for the registration is of about one (1) month from the date of filing.

- **Get the final VAT number** ("NIF definitivo").

- **Set an accounting/finance system.** Comply with relevant local and state tax requirements.

- **Get business insurance.** To protect the business. Licenses from CRG require proof of insurance.

- **Other requirements.** Other requirement might be necessary in a case by case basis, depending on the activity of the startup.

More information and support on these steps can be found at:
http://portal.circe.es/es-ES/servicios/Paginas/Servicios.aspx

In addition to the aforementioned steps, TBDO will also assist you to:

- **Implement a breath-taking website**: This is a modern necessity - Search and seek a domain name/URL with the corporate name for a website and create an email account. Expand the website to be your marketing nexus.

- **Develop company logo and branding materials:** These can be developed after the company is established, but should be in place prior to web or product launch. This includes trademarks on the company name and logo.

Appendix F:
COMPANY DOCUMENTATION

The following checklist summarizes the main documents that need to be in place to incorporate a startup and provide a solid foundation for the startup's organic growth.

- **Organizational documents and resolutions** (Deed of Incorporation or "Escritura de Constitución"). The Deed of Incorporation of a Limited Liability Company (Escritura de Constitución de Sociedad Limitada/ Sociedad Anónima) includes the full identity of the founders, the distribution of the share capital among the founders, the contributions of each of the founders, the appointment of the administrative body (Órgano de Administración), such as the directors in case of a Board of Directors, the bank certificates which provides evidence of the monetary contributions of the founders to the share capital of the Company, the certificate of availability and reservation of the startup's name, powers of attorney, if applicable, in favor of designated individuals to act on behalf of the startup, and the Articles of Association or By-laws.
- **Articles of Association or By-laws (or "Estatutos").** It establishes, without limitation, the governing rules of the startup, such as the name of the company, its corporate purpose, its registered address, the share capital of the Company, the regime for the transfer of shares, the rules for the calls and constitution of its shareholders' meetings, the majorities of the shareholders' meetings and of the Board of Directors to approve the pertinent resolutions, the form of administrative body of the startup and the regulation of the functioning of the Board of Directors, if applicable, the closing of the fiscal year, the rules and obligations regarding the formulation, audit, if applicable, approval and deposit of the startup's annual accounts, and the rights of the shareholders. If different classes of shares are issued, it also establishes the different rights held by each class of shares.
- **Administrative body**. The management of a limited liability company is endeavored by its administrative body. Four forms of administrative body are available: (a) one sole administrator; (b) two or more joint and several administrators; (c) two or more joint administrators; and (d) Board of

Directors with a minimum of three (3) members and maximum of twelve (12) members. The members of the administrative body may be Spanish nationals or foreigners, as well as individuals or corporations, provided that such corporations appoint an individual to perform the functions of the administrative body. The decision by the Board of Directors require the approval of the majority (half plus one) of votes of the directors attending the meeting being present or represented by other board member.

- **Capitalization Table or "Cap Table"**. It reflects the current and future capital stock, including nominal value and premium, and other equity instruments of the company such as convertible loans or revenue-related loans, regarding current and future financial rounds, and including additional investors, dilution, and related matters.

- **Stock or Shareholders' Register Book**. It is a clear, concise record of ownership of all shares and the title to the shares with related shareholder information. It is compulsory to have it updated.

- **Minutes' Register Book.** It is a record of all minutes of the shareholders' meetings and, if applicable, of the Board of Directors. It is compulsory to have it updated.

- **Shareholders' Agreement**. Generally, a Shareholders' Agreement sets out the terms by which the shareholders regulate the relationship between the shareholders and between the shareholders and the company. It sets forth the rules for the transfer of shares, the rights of shareholders to purchase, acquire, encumber, sell, dispose, and otherwise transfer shares held in the capital of the company, as well as the list of resolutions of the shareholders' meetings and, if applicable, the Board of Directors which are subject to qualified majorities, drag along right, tag along right, anti-dilution, rights of information of the shareholders, obligations of the shareholders, non-competition, confidentiality, governing law and competent jurisdiction or arbitration, and other terms and conditions. The Shareholders' Agreement will evolve in line with the company and in particular when new investors become involved.

Appendix G:

RESOURCES FOR ENTREPRENEURS

THE TBDO ENTREPRENEURIAL ECOSYSTEM

Since its inception at CRG, the TBDO has promoted an entrepreneurial mindset and activities that help foster innovation. As you move through the ecosystem, you will network with an entrepreneurial community that will increase your startup opportunities, while fueling your enthusiasm for the endeavor. Below is a brief descriptions of some of the major resources of this entrepreneurial ecosystem.

TBDO: The TBDO is made of professionals with strong, and complementary scientific and business backgrounds. Determination, integrity and passion for what we do are the main drivers of our work. The TBDO is responsible for CRG intellectual property and takes an active role in working with CRG entrepreneurs. We welcome and encourage entrepreneurial ventures as a valuable option to drive CRG technologies and their benefits to the market and society. Whether or not you are a member of the CRG community, TBDO can support you pro bono with information and resources needed to start your new venture.

More information at **http://tbdo.crg.eu/about-us**

Business board: The TBDO benefits from the expert advice of a business board that is made up of representatives from local and international biotech and pharma companies, venture capital, business schools and the economics press. The board meets once a year to guide and advice the institution in general and the TBDO in particular, about different initiatives to help bridge the gap between science and society, and science and industry.

More information at **http://tbdo.crg.eu/business-board**

Alumni: Since its foundation, the CRG has trained and produced a considerable number of excellent scientists and entrepreneurs who, after leaving the CRG, have continued to contribute their knowledge and energies into social welfare from various sectors. CRG Alumni has been conceived as a platform for all of the researchers and employees who have been part of the CRG at some point in their professional careers, where they can share both professional and personal experiences.

More information at **http://www.crg.eu/en/content/about-us/about-alumni**

BBS: The Bio-Business School (BBS) is a 5-days intensive course that help raise awareness about entrepreneurship and technology transfer among the participants. The school is composed of lectures and workshops, which motivate participants through hands-on and real-life examples. Lectures provide an introduction to a key aspect of entrepreneurship and technology transfer in the Life Sciences sector and the most relevant tools in relation to it. Workshops allow participants to apply the newly acquired knowledge to their own projects or ideas, in order to make them into products. Business concepts are identified on the first module/day and consequently developed in teams toward a marketable project during the 5-days course.

More information at **http://tbdo.crg.eu/entrepreneurs/entrepreneurs-club/biobusiness-school**

CGF: The "Commercialization Gap Fund" (CGF) is a TBDO proof of concept program that helps accelerate the commercialization of CRG technologies. It provides funding to bridge the gap between research and commercialization in the absence of an industry sponsor or investment partner. The aim of the CGF is to help CRG projects move forward to the stage where they can be licensed to industry, investors or newly created spin-off companies, but not to fund the creation of spin-off companies per se, which may be the object of separate negotiations with the TBDO.

More information at **http://tbdo.crg.eu/community-and-inventors/develop/proof-of-concept**

S2B: The "Science to Business" (S2B) concept challenge is a TBDO initiative that celebrates the spirit of innovation and entrepreneurship among CRG researchers, with a view to pursuing commercialization of a technology that originated in CRG research. The challenge aims to address critical healthcare and market needs, while stimulating CRG entrepreneurs to create innovative strategies to address them. The program aligns resources available through CRG's entrepreneurial ecosystem to maximize the opportunity to launch a successful commercial venture, thus increasing the impact of CRG's research-derived innovations.

More information at **http://tbdo.crg.eu/entrepreneurs/entrepreneurs-club/s2b**

EiR: The CRG "Entrepreneur-In-Residence" (EiR) Program is designed for either:

1. **Experienced and successful business executives,** selected by TBDO to explore startup opportunities based on CRG technologies or know-how. The objective is for the EiR to identify projects in which they can contribute their managerial expertise. In some cases, they can eventually be matched with a startup team missing skills in startup creation;

2. **CRG Alumni**, willing to take their own new technology or know-how to the next level, by leveraging CRG scientific support and infrastructure.

More information at **http://tbdo.crg.eu/entrepreneurs/entrepreneur-in-residence**

Entrepreneurs' Club: The TBDO's "Entrepreneur´s Club" aims to promote an entrepreneurial mindset, with activities that will foster innovation at the CRG. We organize monthly events, seminars, workshops and round table sessions for networking and to discuss about real business cases with experts in the sector. Altogether, the TBDO facilitates entrepreneurial training and provides our future entrepreneurs with the tools and insight necessary for bringing new ideas to fruition. Whether you are considering starting up a new venture or you are simply interested in entrepreneurship, we encourage you to get involved in our innovation environment. We also welcome any initiative raised by our members that fits with the spirit of our club.

More information at **http://tbdo.crg.eu/entrepreneurs/entrepreneurs-club**

OUTSIDE RESOURCES

From Science to Business: "From Science to Business" is a 3-days intensive workshop on entrepreneurship in research, organized by The Barcelona Institute of Science and Technology (BIST) in collaboration with ESADE Business School. The course prepares BIST researchers to get acquainted with how companies create value in a competitive environment and to understand the important role that they can play in the new venture creation process.

More information at **http://bist.eu/from-science-to-bussines/**

CaixaImpulse: CaixaImpulse is an intensive acceleration program, promoted annually by “la Caixa” Banking Foundation and Caixa Capital Risc. The program is addressed to researchers in the fields of Healthcare and Life Sciences, interested in transferring research assets from the lab to society and the market, through the creation of new products and companies.

More information at **https://www.caixaimpulse.com/en/home**

ADDITIONAL RESOURCES FOR INVENTORS TO VALIDATE THE OPPORTUNITY

SECTOR ASSOCIATIONS

Bio Region Catalonia
http://www.biocat.cat/

Doctor’s association
http://www.med.es/cat/tecnologia/emprenedor.htm

BIOTECHNOLOGY INCUBATORS

Parc Científic de Barcelona
http://www.pcb.ub.edu/portal/en

Parc d’Investigació UAB

http://www.uab.cat/web/services/supportingentrepreneurship-1345674858263.html

USEFUL LINKS

CRG Intellectual Property and Technology Transfer policy
http://tbdo.crg.eu/sites/default/files/CRGIntellectualPropertyPolicy_web.pdf

CRG Conflict of Interest policy
http://tbdo.crg.eu/sites/default/files/CRGConflictofInterestPolicy.pdf

CRG letter to industry on licensing terms
http://tbdo.crg.eu/sites/default/files/Letter to Industry on Licensing Terms.pdf

CRG Entrepreneurs in Residence program
http://tbdo.crg.eu/entrepreneurs/entrepreneur-in-residence

Entrepreneurs' resources in Cataluña
http://emprenedoria.barcelonactiva.cat/emprenedoria/cat
http://accio.gencat.cat/cat
http://www.icf.cat/ca/inici
http://inicia.gencat.cat/inicia/es/guia/guia_financament/index43973.jsp?cN=tcm:141-43973&cami
http://inicia.gencat.cat/inicia/es/guia/guia_financament/index43969.jsp?cN=tcm:141-43973tcm:141-43969&cami=tcm:141-43973

Entrepreneurs' resources in Spain
http://www.enisa.es/es/financiacion
https://www.cdti.es/index.asp

Leading BAN resources in Spain
http://www.aeban.es
http://www.esadealumni.net/ea/entrepreneurship/esadeban_network
http://www.iese.edu/en/companies-institutions/supporting-startups/business-angels/
http://www.keiretsuforum.es/en/

Leading VC resources in Spain
http://www.ascri.org

Specific bio/life sciences funds in Spain

http://www.ysioscapital.com/
http://www.healthequity.es/
http://www.caixacapitalrisc.es/ca/vehiculos-de-inversion/caixa-capital-biomed/
http://www.inveready.com/ca/cr/fondo/4

Further investors associations
http://tbdo.crg.eu/entrepreneurs/entrepreneurs-club/resources

Useful tips for business planning
http://www.forbes.com/sites/davelavinsky/2014/01/30/how-to-write-a-business-plan/

Lean startup
http://theleanstartup.com/
https://hbr.org/2013/05/why-the-lean-start-up-changes-everything

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